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# CALIFORNIA WESTERN MEDICINE

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# THE EXPERIMENTAL PRODUCTION OF ARTERIOSCLEROSIS ASSOCIATED WITH INCREASED BLOOD PRESSURE†

By FRANKLIN R. NUZUM \*

FOUR groups of factors have been outlined by numerous investigators as of etiologic importance in the production of arteriosclerosis and increased blood pressure.

To these a fifth group has more recently been added, i. e., a disturbance of the acid-base balance resulting in the excretion of excessively acid urines. This disturbance of balance has been produced by high protein diets both in man and in experimental animals. The dietary of the American people with its excess of meat, cereals and bread, is of this acid type.

By feeding various excessive protein diets to experimental animals for periods as long as two years, we have obtained increased blood pressures. The animals in which the most marked increase of blood pressures were obtained presented extensive arteriosclerosis of the aorta and in many instances of the coronary arteries. Evidence of kidney damage was also obtained, as demonstrated by chemical studies of the blood and urine.

The histology of arteriosclerosis is described and the similarity to human arteriosclerosis pointed out.

The occurrence of spontaneous sclerosis in rabbits is discussed and its absolutely different histological picture is considered.

The possibility of long-continued disturbance of the acid-base balance of the body as ewidenced by the excretion of an excessively acid urine and of a lowered CO<sub>2</sub> of the blood plasma (vols. per cent) being a causative factor in the production of arteriosclerosis is considered.

DISCUSSION by W. T. Cummins, San Francisco; Newton Evans, Loma Linda; A. M. Moody, San Francisco.

#### INTRODUCTION

HE degenerative diseases of the cardiovascular, renal system are now killing more people than any other group. During the past fifty years the span of human life has been increased nineteen years. As a result of the efforts of medical science, it is likely that this span of life will be further increased and consequently a larger number of people will be entering the decades of life in which high blood pressure and the conditions which are closely related to it—chronic nephritis and heart failure—are more apt to occur.

The causes of hypertension are not proved. Of the theories advanced three are given most prominence: (1) That focal infection plays a prominent rôle; (2) that an increased cholesterin content of the blood stream is a prominent factor; and (3) that excessive protein diets are in some measure responsible.

The difficulty of relating the etiological factors of chronic nephritis, high blood pressure and fibrous myocarditis in the human, lies partly in the long span of years that elapses between the onset of the condition and the time when the vital organs may be obtained from the body for study. To offset this handicap, numerous experimental studies have been undertaken with laboratory animals to produce sclerosis of the vessels and a chronic nephritis comparable to that found in man. The objection that has been raised to most of this work is that the sclerosis and nephritis produced does not resemble human sclerosis and nephritis. Feeding experiments undertaken in an endeavor to produce these changes have received little attention.

Newburgh and Clarkson have succeeded in producing a marked arteriosclerosis in the aortas of rabbits fed on high protein diets. These changes occurred quite regularly after six months on such a diet. The criticism of this work was that these diets were not well balanced and that the lack of a proper diet in itself might have had some relation in the causation of the sclerosis that was found.

German investigators, particularly Schmittman,<sup>5</sup> Antischkow,<sup>6</sup> and Schoenheimer,<sup>8</sup> have produced experimental arteriosclerosis in the vessels of rabbits by feeding diets that contained considerable amounts of protein and cholesterol. These investigators contended that the excessive cholesterol in the diet was responsible for the sclerosis.

I have undertaken feeding experiments in the effort to produce arteriosclerosis. I selected the diets

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so as to avoid the criticism raised as to a poorly balanced ration.' For example, the liver protein diet contained:

	Per cent
Wheat	. 30.0
Maize	. 20.0
Casein	
Liver	. 20.0
Navy bean	. 5.5
NaC1	. 1.0
CaCo <sub>3</sub>	
Cod liver oil	2.0

Amounts of tomato were also given.

Twelve animals were kept upon this diet over a period of two years, which represents approximately one-third of the life of a rabbit.

To avoid the criticism that excessive cholesterol might be responsible for arteriosclerosis which might develop, I fed a second group of animals upon a protein diet of oats. There is little or no cholesterol in oats. In each of these first two diet groups the urines obtained were excessively acid. The disturbance of the acid-base balance of the body that follows the continued ingestion of diets rich in protein may, in part, be responsible for the blood vessel and kidney degenerations which result and for increase in blood pressure which was found to occur in these groups of animals. (Note: For the method of taking blood pressures in rabbits and for increase in blood pressures observed, see previous publication in the Archives of Internal Medicine, April, 1925, 35:492.2)

A third group of twelve animals was placed upon a soy bean diet. This, again, was a diet containing approximately 40 per cent of protein and little or no cholesterol. The urines from these animals were excessively alkaline, in contrast to the acid urines obtained from the other types of proteins fed the preceding groups. An increase in blood pressure was likewise obtained in this group, but to a less extent than the others. In none of the twelve instances was a true arteriosclerosis found. In two a spontaneous type of arteriosclerosis was present. This consisted of a necrosis of the smooth muscle cells of the media of the aorta, and resulted in a thinning of the aorta in contrast to a thickening as occurs in human sclerosis and types of sclerosis obtained in groups one and two.

A control group of twelve animals, kept upon a mixed diet for a period of two years, presented no increase in blood pressure and no instance of sclerosis.

#### OBSERVATIONS

Liver Diet—The aortas of seven rabbits of a group of ten kept upon a liver diet for from three to eleven months presented extensive arteriosclerosis. Three rabbits on this diet for a period of less than three months did not present evidence of blood vessel change. Grossly, the intima of the aorta presented raised yellow-white areas which in some instances involved the entire lumen of the vessel and extended in patches from the root to its iliac bifurcation. In one instance the pulmonary artery was also involved. Microscopically this process of intimal change has been followed from an early swelling of the intercellular cement substance of the

intima to a very marked thickening with the deposition of calcium soap in very considerable amounts. In the later stages of intimal swelling the elastic fibers become destroyed and the cellular structures are replaced by a homogenous hyaline-like material. It is in this hyaline substance that the calcium is found. Not until the intimal changes have reached an advanced stage do the endothelial cells covering the intima break down. In some instances of advanced change in the intima these degenerative processes have extended by continuity into the media, but never extensively. The intimal changes were particularly prone to occur about the mouths of the coronary and intercostal arteries-that is, at points of stress. In each of the seven liver-fed animals in which sclerosis of the aorta was found, sclerosis of one or both coronary arteries was likewise present to a very considerable degree. The microscopic picture of the coronary sclerosis was precisely like that of the aorta.

There was no evidence of spontaneous (medial) sclerosis in any animal of the liver group. In spontaneous sclerosis the changes are confined to the media and consist of a necrosis of the smooth muscle cells and of a deposition of calcium in the necrotic areas. The overlying intima is not involved. On the frequency of this condition in rabbits there have been many reports, but nearly all lack a careful study of the histology, and the writers therefore have failed to recognize these two types of sclerosis. The literature on this question has recently been summarized by Newburgh and Clarkson.<sup>4</sup>

The blood pressures in this group were higher than in any other and were highest in those animals in which the sclerosis was most marked. In each of these animals there was also very definite evidence of kidney injury as shown by the presence of albumin and casts in the urine and by an increase of nonprotein nitrogen and urea nitrogen in the blood. The urines of these animals were decidedly acid, the Ph. ranging from 5. to 7. The CO<sub>2</sub> of the blood serum was decreased.

Grain Diet—The aortas of seven of eleven animals kept upon an oat diet for two years (with the addition of green vegetables at stated times) presented marked arteriosclerosis. These changes were most pronouncd in the arch and extended down into the abdominal aorta as isolated scattered patches. These patches, as in the liver group, were especially to be found about the mouths of the intercostal vessels. The coronary arteries contained areas of sclerosis in three of the seven instances that presented aortic changes.

Spontaneous or medial sclerosis was present in three of the seven animals that had an intimal sclerosis. This type of change presents grossly a thinning of the wall of the aorta in contrast to a thickening such as occurs in arteriosclerosis.

The most pronounced arteriosclerosis was found in those animals which had been on the grain diet for the longest time (two years). It was these animals, also, that had the most marked increase in blood pressure, the maximum pressures ranging between 90 and 100 mm. hg., whereas the pressures of these animals at the beginning of the experiment, and the pressures of the control animals, averaged

74 mm. hg. The kidneys of these grain-fed animals that presented areas of sclerosis and increased blood pressure likewise gave evidence of injury. Albumin and casts were present in the urine after the sixth month of the experiment. The urine was acid, the pH ranging from 6. to 6.8. The CO<sub>2</sub> of the blood serum was decreased. The nonprotein nitrogen and the urea nitrogen of the blood were increased.

Soy Bean Diet-A third group of twelve animals was kept upon a diet of ground soy beans for two years. (At weekly intervals greens were added to this diet to prevent deficiency diseases.) The protein in this diet averaged 36 per cent and was of the vegetable type. It was given because it produces a very alkaline urine in contrast to the acid urines that the other two groups of protein produce. The pH of the urine of this soy bean group averaged 9. which is high even for the rabbit, whose urine on a herbivorous diet does not exceed a pH of 8. Not one of the twelve animals in this group presented true arteriosclerosis. Three presented areas of spontaneous or medial sclerosis.

Controls-A group of twelve control animals was kept under the same living conditions as the above groups and fed upon a mixed diet of oats, alfalfa, and greens. At the end of the two-year period they were killed. No sclerosis of either type was found in either aorta or coronary arteries. The blood pressure averaged 74 mm. hg., which is normal. The urines did not give evidence of kidney damage. The nonprotein nitrogen and urea nitrogen of the blood

remained normal.

#### DISCUSSION

The term arteriosclerosis has been employed here because of its general use, although Marchand's term, atherosclerosis, more accurately describes the pathology.8

The earliest changes visible at autopsy consists of small raised yellow specks in the intima. This is due to a deposition of fat droplets containing cholesterin esters in the extracellular cement substance of the intima, secondary to a loosening and swelling or

thickening of the intima.

These early changes may regress or may progress. In the latter event the cement substance fuses into a hyaline mass. The surrounding connective tissue is stimulated by this process, and these areas become covered with newly formed connective tissue. This new connective tissue swells and a deposition of hvaline material again occurs. Thus, layer is added to layer. In this area the deposition of fatty substances continues until the tissue cells and intracellular substance becomes so overloaded with fatty material that necrosis occurs. The cholesterin esters split up. Cholesterin is freed and precipitates out as crystals. The liberated fatty acids form soaps, the calcium soap leading to the incrustation and calcification which characterize the atheromatous ulcer.1

Many of our animals presented arteriosclerotic changes, the counterpart of human sclerosis, as described above. In the aortas of these animals the earliest lesion was found to be primarily the swelling of the intercellular cement substance. This was followed by a deposition of fat substances, of hya-

line material and, finally, of calcium soaps. These changes occurred with greatest frequency in those animals upon a 20 per cent liver protein diet in which the most marked increase in blood pressures were obtained, whose kidneys gave evidence of a nephritis and whose blood gave evidence of retained end products of protein metabolism. The urines of these animals were continuously very acid.

We attempted to determine whether the factor of disturbed acid-base balance as expressed by the long-continued secretion of excessively acid urine might in itself be responsible for the increased blood pressure and the degenerative blood vessel changes. To this end, the high protein (36 per cent) soy bean diet was given. The vegetable protein resulted in the excretion of a urine whose pH held around 9. The CO2 of the blood serum averaged almost twice as high, 59 vol. per cent as against the control animals, 30 vol. per cent. While there did occur clinical evidence of kidney damage and an increase in the blood pressure, yet no instance of intimal arteriosclerosis was found in any of the twelve animals of this group. One would expect kidney damage from the long-continued alkalosis that resulted from the soy bean diet. Fischer has shown that excessive alkali is capable of producing a nephritis. Henderson has completed work which permits of the same conclusion. Our experiments show clearly that a long-continued disturbance of the acid-base balance of rabbits on the alkaline side is capable of causing a moderate hypertension and of causing kidney damage, but that it does not produce arteriosclerosis. The absence of arteriosclerosis may have been due to the fact that the blood pressure was not sufficiently increased in height or long enough maintained to produce this change.

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Inc., 1915.

#### DISCUSSION

W. T. CUMMINS, M. D. (Southern Pacific Hospital, San Francisco)—The increasing incidence of cardiovascular disease renders pertinent its clinical and experimental study. Much has been evaluated in cardiac investigation instrumentation, and various methods have been learned and perfected in the study of sclerosis of the vascular system and the coincidental or eventual kidney involvement. Hypertension was discovered, and its voluminous literature attests to its importance among the symptoms of cardiovascular disease. Toxins have been shown to be etiological in arteriosclerosis and kidney disease, and it is most likely that focal infections do play a rôle in the production of hypertension. Cholesterol, as an etio-logical factor, demands much more investigation. Excessive food proteins have been considered for a long time irritating to the kidneys and, more recently, as distinct disturbers of the acid-base balance. Of the three outstanding theories for the production of hypertension, as mentioned by Doctor Nuzum, focal infections and excessive food proteins appear to be factors, perhaps acting separately or conjointly, in the writer's opinion. How-ever, for the study of many of our problems we wish to make animal investigations. Several years ago the writer studied the effects of adrenalin injections in rabbits and found arteriosclerosis. We apparently prevented its development by using coincidently potassium iodide. At that time we did not seriously differentiate the socalled spontaneous or natural arteriosclerosis of rabbits from the experimentally induced type. This differentiation has been well noted by Nuzum in the study of his lesions. In contrast with some of the other investigators, Nuzum has been mindful of well-balanced diets and has studied a liberal number of animals including controls. The coronary sclerosis in his liver-fed animals is a good reproduction of the human type, and was not found in our experimental work. Furthermore, he has produced pathology with evidences similar to human cardiovascular and renal disease, viz., hypertension, acid urine, albuminuria, cylindruria, decreased carbondioxide content of the blood plasma and other signs of retention, such as increased blood urea nitrogen and nonprotein nitrogen. This is indeed a formidable array of evidence.

The writer considers that this is a most interesting and valuable experimental study and hopes that the work may be continued. A study of the activity of bacterial and food proteins separately and conjointly in experimental vascular pathology as to quantitative results might

NEWTON EVANS, M. D. (Loma Linda, California)-Some of the questions about arterial hypertension, kidney damage, and arteriosclerosis are elucidated by Doctor Nuzum's study. It presents much food for thought, but it is evident that much of the problem is still unsolved. His clear presentation of the differences between the endarteritis apparently resulting from the abnormal diet and the spontaneous medial arterial changes in rabbits is convincing.

His main contention that atherosclerosis is directly related to the disturbance of the acid-base equilibrium of the body, particularly on the acid side, seems consistent with the observations on the animals used. What the real relationship between morphological kidney changes, arteriosclerosis and high blood pressure are, is still ap-parently far from settled. Since his observations seem to abnormally high protein rations there were seen high abnormally high protein rations there were seen high blood pressure and signs of nephritic changes irrespec-tive of whether the animal was overacid or overalkaline, one might still be justified in suspecting that the high protein is in some way responsible for these effects.

If the acid-base equilibrium disturbance could be ex-

perimentally maintained without the use of excessively high protein ration, the result might give information of a more conclusive nature on the point stressed by Nuzum. One cannot but feel that perhaps conclusions would be more valuable if an animal such as the rat, whose dietary

apparently more nearly resembles that of man, were used as was done by McCollium and his associates, as well as by Risley and me, in observing the effects of high protein upon kidney structure and function.

A. M. Moody, M. D. (Saint Francis Hospital, San Francisco)—I believe that Doctor Nuzum has produced in his experimental rabbits an arteriosclerosis typical, grossly and microscopically, of that seen in man. This work also sets forth very clearly the differences between the spon-taneous type of arteriosclerosis and the type artificially produced in rabbits. There is, however, much work still necessary to prove conclusively whether the changes present are the result of a disturbance of the acid-base

equilibrium or whether they are the result of the action of toxic substances produced somewhere by the improper splitting and subsequent disposition of the protein molecule after ingestion. This work would also tend to prove that there is some difference in the changes occurring in rabbits fed largely on vegetable protein and in those fed on animal protein. The determination of causes—of which there must be many—of arteriosclerosis is an enormous problem, and Nuzum's work presents important evidence of the association of an acid-base disturbance with arteriosclerosis and high blood pressure.

#### SUPERFICIAL EPITHELIOMATA

A REVIEW OF THE CASE HISTORIES OF PATIENTS TREATED IN THE OUT-PATIENT DEPARTMENT OF THE UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL BETWEEN 1920 AND 1926

By C. J. LUNSFORD AND LAURENCE TAUSSIG \* DISCUSSION by W. F. Howard Taylor, Los Angeles; Douglass W. Montgomery, San Francisco.

HE material for this paper was drawn from 230 histories of patients applying to the clinic for treatment of basal and squamous-celled epitheliomata between 1920 and 1926. We have attempted to demonstrate, principally by means of tables, some of the instructive features revealed by a careful study of these histories. In many instances the records were not complete, and in many more the patients were lost sight of too early to judge the final result of treatment. We have emphasized the differentiation between basal and squamous-celled growths on account of the relative benignity of the first in comparison with the latter. Most of the patients whose records were reviewed were first seen and were treated in the dermatology clinic, though a number were referred to the surgical department. Of those treated in the skin clinic the greater number received radium therapy, often in conjunction with x-ray, curettage, cautery, dessication or surgery. The number of patients is too small to compare the various methods of treating the different types of lesions and we have avoided making such comparisons.

#### AGE INCIDENCE

In Table I we have indicated the incidence of basal-celled and squamous-celled epitheliomata by decades. It will be noted that about 10 per cent of the squamous-celled growths occur before the age of 40, while only about 1 per cent of the basal-celled growths occur during this period. On the other hand, 30 per cent of the basal-celled new growths occurred after the 70th year; while only 21 per cent of the total number of the squamous type occurred at this time. It is of interest to note that the peak of the incidence in this series of skin and mucous

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Laurence R. Taussig (384 Post Street, San Francisco). M. D. University of California, 1918; A. B. and M. S. University of California. Present hospital connections: Instructor in dermatology, University of California. Scientific organizations: San Francisco County Medical Association, California Medical Association, American Medical Association. Practice limited to Dermatology since 1919.

TABLE I-According to AGE

	BASA	L CELL	SQUAMOUS CELI		
YEARS	No.	%	No.	%	
20-30	1	1.1	1	.7	
31-40	0	0	13	9.2	
41-50	12	13.7	22	15.6	
51-60	23	24.1	41	29.	
61-70	27	31.	34	24.1	
71-80	20	23.	25	17.7	
80 up	.6	7.	5	3.5	
TOTAL	89	100%	141	100%	

membrane new growths occurs during the fifth and sixth decades, whereas the incidence of cancer in general is usually considered to be somewhat lower.

#### SEX INCIDENCE

Table II indicates that of the total basal and squamous-celled epitheliomata, 70 and 95 per cent, respectively, occur in men. The seven to three ratio of the basal-celled cases is in keeping with the usual understanding. Of the twenty cases of squamous-celled epitheliomata occurring on the glabrous skin three only occurred in women. Of the sixty-six lip epitheliomas three were in women. Of the twenty-three tongue carcinomas one was in a woman, and of the thirty-two mouth cancers, other than of the tongue, none occurred in women.

#### INCIDENCE ACCORDING TO LOCATION

The incidence of basal and squamous-celled growths according to the location of the lesion is indicated in Table III. It will be seen that on the face, other than the ear, the ratio of basal to squamous-celled lesions is six and one-half to one, while on the ear the ratio is reversed, being three and one-half squamous to one basal. This is in accordance with the usual statistics. One hundred per cent of the growths on the mucous membranes were squamous-celled in this series. Included under epitheliomata of the skin are several basal-celled growths which originated on the skin of the lips and later spread to the vermilion border, finally extending to the gum. Of the basal-celled epitheliomata of the face about 60 per cent were on the nose and cheek. Many of these involved the naso-labial fold and extended in all directions. Of the remainder about ten occurred near or at the inner canthi of the eyes, often extending to the eyelids and to the bridge of the nose.

#### DURATION BEFORE APPLYING FOR TREATMENT

Table IV is a graph of the basal and squamouscelled epitheliomata according to the limits of and average duration of time the lesions had existed at the time the patient first visited the clinic. Comparing the two it will be noted that of the basal-celled growths the extreme limits of time are three months and eighteen years with an average of four years, and that of the squamous-celled growths between three weeks and eight years with an average of thirteen months. This indicates the type of case our clinic receives for treatment and explains the relatively small number of cures we have obtained.

### RESULTS OF TREATMENT OF EPITHELIOMATA OF THE GLABROUS SKIN

Table V shows that of all cases of basal-celled epitheliomata, a clinical cure has been obtained in 67 per cent. Closer analysis of the histories shows that of the cases of basal-celled epitheliomata applying for treatment during the first year, a clinical cure was obtained in 100 per cent. Those coming for treatment after a duration of five years or those who had received previous ineffective treatment were about twice as difficult to cure. The squamous-celled lesions which we apparently cured had a history of less than two years' duration.

In our tables "clinical cure" means freedom from symptoms for at least one year. "Question" means that the patient had not been under observation for a sufficient length of time to permit a correct estimate of the effects of treatment.

## RESULTS OF TREATMENT IN SQUAMOUS-CELLED EPITHELIOMATA OF LOWER LIP

In Table VI we have classified the cases of squamous-celled epitheliomata of the lower lip into (1) those without demonstrable metastasis; (2) those with demonstrable metastasis; and (3) those regarded when first observed as being hopeless and which received palliative treatment only. Of those without demonstrable metastasis practically one-half were clinically cured at the time of their last visit. The period over which they were observed after healing is shown by glancing at the chart. Many of them have not been seen in months and some not in years; therefore, their ultimate fate is unknown. Nine out of forty-seven, however, were well after the lapse of a year. Seven did not respond favorably to treatment and presumably died of cancer.

Under "questionable cases" is included four patients in various stages of involvement referred to surgery and two referred to other hospitals. The

TABLE II—According to SEX

		BAS	AL		SQUAMOUS				
	N	MALE	FE	MALE	M	ALE	FEMALE		
LOCATION		%	No.	%	No.	%	No.	%	
Face, other than lips and ear	61	67.8	26	29.9	11	7.9	2	1.4	
Lips	0	0	0	0	63	43.9	3	1.4	
Ear	2	2.3	0	0	6	4.7	1	. 7	
Tongue	0		0	0	22	16.6	1	.7	
Mouth other than tongue	0		0	0	32	23.7	0		
TOTAL	63	70.1%	26	29.9%	134	95	7	5%	

TABLE III—According to LOCATION

,	В	ASAL	SUCAMOUS		
	No.	%	No.	%	
Face, other than ear	87	87%	13	13%	
Lip—lower	0		66	100%	
Ear	2	22%	7	78%	
Tongue	0		23	100%	
Mouth, other than tongue	0		32	100%	
TOTAL	89	39% of whole	141	61% of Whole	

others were not under observation long enough to permit any estimate of results. Of the sixteen patients with demonstrable metastases one shows a four-year cure, five were worse under treatment, and ten did not return to the clinic for observation. The chart shows that the squamous-celled epitheliomata of the lip have a poor prognosis after metastasis has occurred.

# RESULTS OF TREATMENTS OF EPITHELIOMATA OF THE MOUTH OTHER THAN THE TONGUE

In Table VII we have classified the patients into (1) those whose tumors were clinically localized; (2) those in whom the local growth was either extensive or in which there was a demonstrable metastasis; and (3) the hopeless. Of the eight patients with relatively localized tumors two show a two-year clinical cure and one a four-year clinical cure. Many of those listed under "extensive" were, in fact, hopeless from the beginning, and a clinical cure was obtained in none. Three improved and nine grew worse while under treatment, but were lost from observation before final results could be noted. The eight patients listed under "question" did not remain long enough under observation for complete treatment to be given.

It was not thought worthwhile to chart epitheliomata of the tongue. Nearly all such patients were far advanced when first observed. Many are listed as hopeless. A large number of them did not return after the first or second treatment and were thus lost sight of before the effects of treatment were known. Of the twenty-three patients studied one shows a five-year cure. The treatment was implantation of bare tubes of emanation in the local growth, followed by neck dissection. Nine grew worse under observation; nine did not remain under treatment long enough to permit of adequate observation; and four were listed as hopeless when first seen.

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TABLE IV-According to DURATION BEFORE APPLYING FOR TREATMENT

	BASAL		SQUAMOUS			
	Limits	AVERAGE	LIMITS	AVERAGE		
Face other than ear	3 mo.—18 yrs.	4 yrs.	3 wks.—5 yrs.	2 yrs. 13 mo.		
Lip	0	0	3 wks.—8 yrs.			
Ear	2-4 yrs.	3 yrs.	8 mo. —1 yr.	10 mo.		
Tongue	0	0	1 mo. —4½ yrs.	1 yr.		
Mouth other than tongue	0	0	1 mo. —2 yrs.	10 mo.		
AVERAGE TIME—for all		4 yrs.		13 mo.		

Summary—A study has been made of 230 cases of superficial epitheliomata. Separate analysis are made of the basal and squamous-celled types and of those of the skin and of the mucous membrane. Comparisons were based on age, sex, location, duration of time and primary end-results of treatment.

Results—Skin cases: Of the 109 skin cases 89 basal-celled epitheliomata show a 67 per cent cure, and 20 squamous-celled epitheliomata show a 55 per cent one to five-year cure.

Mucous Membrane Cases—Sixty-six squamouscelled epitheliomata of the lower lip show a 15 per cent one to four-year cure; 23 tongue cases show a 4 per cent five-year cure; and 32 mouth cases show a 9 per cent two to four-year cure.

#### CONCLUSIONS

The following conclusions are based on the data obtained from the tables:

- (1) Squamous-celled epitheliomata of the skin occur at an earlier age than do basal.
- (2) Men are two and one-third times as susceptible to basal-celled epithelioma and nineteen times as susceptible to squamous-celled epithelioma as are women
- (3) There are more basal than squamous-celled epitheliomata of the skin, excluding the ear. Most of the epitheliomata of the ear are squamous celled.
- (4) Squamous-celled epitheliomata grow more rapidly and are more resistant to therapy than basal.
- (5) A clinical cure is obtained in a larger proportion of basal-celled epitheliomata than in squamous.
- (6) Patients having received previous treatment respond less rapidly to a subsequent treatment than untreated ones.
- (7) The older a lesion is the more difficult it is to effect a cure, whatever the pathology.
- (8) A successful result is very difficult to obtain in epitheliomata involving the mucous membrane.

#### DISCUSSION

F. W. Howard Taylor, M. D. (C. C. Chapman Building, Los Angeles) — A statistical paper that is honest, especially when dealing with a subject such as superficial epitheliomata, is a real contribution of present-day medicine and surgery. Sometimes claims of cures are made in discussion, or even in papers which, when analyzed, reveal either an improper diagnosis, a failure to classify the types of malignancy, or exaggeration on the part of the speaker.

Doctors Lunsford and Taussig should be congratulated on this unbiased paper which not only gives accurate tabulations, but shows application and work in its preparation. Wisely the preference of various forms of treatment has not been brought out, eliminating considerable useless argument. Contrary to the claims of some who are over-

TABLE V-According to RESULTS OF TREATMENT OF CANCERS OF GLARROUS SKIN

			BA	SAL					SQUAMOUS					
	CLINICAL CURE		RECU	RRENT	QUE	STION		NICAL URE	UNI	MPROVED	QUESTION			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		
Face, other than ear	59	67%	17	19%	11	14%	7	54%	2	151/2%	4	301/2%		
Ear	1	50%	1	50%			4	58%	2	28 %	1	14 %		

TABLE VI-CARCINOMA OF LIP-RESULTS OF TREATMENT

*		CLINICAL CURE						Wonen	Overna	
	No.	3 Mo.	6 Mo.	9 Mo.	1 Yr.	13/2 Yr.	2 Yr.	4 Yr.	Worse	QUES- TION
No Metastasis	47	9	5	1	1	3	4	1	7	16
Palpable Metastasis	16							1	5	10
Hopeless	3			Pallia	tive Trea	atment				-
TOTAL CASES	66									

TABLE VII—Shows RESULTS OF TREATMENT of the LESIONS IN MOUTH OTHER THAN TONGUE

	No.	CLINICA	L CURE	IMPROVED	Worse	QUESTION	DIED
		2 Yr.	4 Yr.				
Relatively localized	8	2	1	4		1	
Extensive	20			3	9	7	1
Hopeless	4			-			4

zealous for certain methods of handling these patients, this data will stand as an accurate guide to prognosis.

Most physicians who are treating squamous-cell epitheliomata even in its fairly early stage and without pal-pable metastasis are careful in treatment and are guarded in prognosis.

Eliminating the always present controversy of various methods of treating these lesions, there is nothing further I can add to this very complete and instructive paper.

DOUGLASS W. MONTGOMERY, M. D. (323 Geary Street, San Francisco)—The paper is an admirable estimate of cases in the experience of the authors themselves, and shows not only their experience, but also the good use they have made of their opportunities.

The division of epitheliomata into those that are squamous celled and those that are cuboidal celled is of more than academic interest, as the squamous-celled growths than academic interest, as the squamous-cened growins arise earlier in life, grow faster, and are more resistant to chemicals and to radiant energy than the cuboidal-celled ones. Because of their swifter growth, and the greater tendency to spread both locally and by metastasis, feature, however, of this cellular classification is that a particular growth may be not entirely one or the other, but may be mixed. It is only natural that this should be so, because the normal cells from which they all spring are not widely separated from one another, nor do they differ from one another very widely in their nature.

The subject of metastasis is important. An enlarged

lymphatic nodule, even though adherent to the surrounding structures, and therefore not freely movable, and even if hard, and therefore indicating that it may be stuffed with dense hard epithelial cells, may be both indurated and attached because of inflammatory infiltration alone. Of course, the harder it is and the more immovable it is the likelier it is to be epitheliomatous, and when epitheliomatous infiltration has already extended as far as the neighboring lymphatic nodules the outlook for a cure is dark indeed.

The dangerous nature of these growths when situated

on the auricle is justly referred to.

Of course, it is an important part of a well-rounded medical education that we should be aware of the difficulties of our occupation, but on the other hand it is not well that we should be too industrious in fabricating gloomy prognoses. If a steamship company should adver-

tise the dangers of the sea it would deter many from traveling. The statistics of nonsurgical treatment of can-cer of the lip have of late years undergone a wonderful improvement, and even the very dangerous lesions of the mouth and tongue are, in some instances, not without hope, as these authors themselves have shown.

We have found in human life three most important factors in the production and control of its processes: (1) the application of energy of life from atoms; (2) the colloidal structure of the human protoplasm; and (3) the control exercised by the vegetative nervous system over these processes. These are the three great fundamental principles of life in the vertebrate, and a study of their action and deviation is necessary to the understanding of human vital processes. The control of the vegetative nervous system is largely in its action upon involuntary muscle, of which example is in the pupil of the eye, the heart, the muscles of our blood vessels (arteries, veins and capillaries). There are two kinds of muscles, voluntary and involuntary: the cerebrospinal system controls the voluntary. The latter is widely distributed in the human body, so that its control is most important. The capillaries of the circulatory system, where most of the interchange of substances with the blood goes on, have smooth muscles (called Houget cells) and, when it is considered that the capillaries in a small man have been estimated by Krogh at a total length of 62,000 miles, or two and a half times around the world, and their total area at 120,000 square yards, the influence of the vegetative nervous system in contracting and dilating these and its effect upon metabolism (or body processes), through this means alone, may be well appreciated. Its control over the heart, which normally pumps seven and one-half tons of blood a day, equivalent to lifting a ton of blood 122 feet high, is another example of its action.—Ellice McDonald, M. J.

A report of the tests recently made by the United States Public Health Service to determine the amount of danger involved from running a gasoline engine in a closed space states that a small twenty-three horse-power engine discharges one and a half cubic feet of carbon monoxide in a minute, or enough to poison the air of a closed garage, ten by twenty feet in size, to the danger point in about three minutes.-M. J. and Record.

#### URINARY ANTISEPTICS

By GEORGE G. REINLE AND E. SPENCE DEPUY \*

DISCUSSION by Miley B. Wesson, San Francisco; H. A. Rosenkranz, Los Angeles; G. W. Hartman, San Francisco; Robert V. Day, Los Angeles.

HOW many patients with ureteral stricture, ureteral kink and such obstructive causes of pyuria are daily being treated by the administration of hexyl resorcinal?

How many patients with pyuria caused by calculus of the kidney, ureter or bladder are being treated by the administration of urotropine?

How many patients with urine cloudy with pus, due to tuberculosis of the kidney, are being treated by vaccine?

The figures are not available; no one knows them; but we do know that they are large and that the treatment above suggested is hopeless.

If such hopeless treatment is being carried out to the large extent that we have good reason to suspect, then the fault lies largely with the members of the California Medical Association, for it is not enough that we may know the limitations and contraindications to the oral, subcutaneous and intravenous administration of drugs, but upon urologists lies the duty of presenting these facts repeatedly to those members of the profession not engaged in restricted lines of practice and who naturally look to specialists for leadership in special lines.

If the physician to whom the patient first goes is of the opinion that the urine can be freed of pus by urinary antiseptics, it is because urologists have failed to make clear the very exceptional conditions under which urinary antiseptics may be of value.

It is the purpose of this paper to present some facts concerning sterilization of the urinary tract to those of our confreres who are usually the first to

be consulted by the patients.

An infection of the urinary tract—considered quite apart from infection of the generative tractis a problem we have had with us always, so from earliest days of empirical therapeutics, up to and through the present era of relatively scientific medicine, there has been a search for and a hope of finding some drug which will produce sterilization of the urinary tract.

We, as urologists, know the difficulties inherent in urinary tract sterilization, but these difficulties are not always appreciated by physicians whom the patient first consults, and who may conclude quite reasonably from much that is published that dyes for intravenous use, new drugs for oral administration, or some vaccine, will clear up the patient's pus and save him the inconvenience and expense of an urological investigation. Such conclusions are

erroneous, and what is more, are productive of harmfully lost time and an added burden of expense to the patient.

Drugs and therapeutic measures designed to sterilize the urinary canal may be classed as, (1) drugs administered orally, (2) drugs administered intra-venously, and (3) drugs administered by instillation into some portion of the urinary tract directly -the kidney pelvis, the ureters, the bladder or the urethra.

It will greatly simplify matters if, as urologists, we take a position and maintain it by the positive statement that no one of these methods, nor all of them combined, has so far satisfied the ideal in accomplishing the desired result to perfection. We will have accomplished much good if we can succeed in fixing the idea that sterilizing the urinary tract is dependent upon much more than the choice of any drug. As there are two principal reasons why the above statement is true, we must lay particular stress upon the following facts: (1) urinary tract infections, if we exclude the urethra, are seldom primary, but are more often than not the reflection of some distant focal infection; (2) the kidneys, ureter and bladder often become infected by a bacterial bearing urine, which would pass harmlessly were it not for mechanical obstructions causing a stagnant urine somewhere along the tract. It is a primary thought of urologists that stagnant, or residual urines, at body temperature, are excellent culture media for many organisms, particularly the colon bacillus, whereas free flowing urine does not become easily contaminated, but commonly carries tremendous loads of bacteria beyond the body without infecting the membranes over which the flow takes place. This even includes the tubercle bacillus. But stagnant urine, even when confined to a space no larger than one of the minor calyces of the kidney becomes quickly a satisfactory media for bacterial growth. Well known as is this statement, its truth is not generally appreciated and given the practical consideration its importance demands.

Also, it seems well to emphasize that obstruction and consequent damming back may take place anywhere along the urinary tract, and from a variety of causes. Inflammatory swelling may be the cause of obstruction in one patient, while, in another, it may be stricture, kink, calculus or neoplasm. The site may be the kidney, ureter, the vesical neck or the urethra. It is well, then, to emphasize that wherever obstruction, even though only partial, exists, we will have stagnant urine, a favorable culture medium and, as a result, possible infecting of the membrane or viscus above the obstruction.

Of methods of administering sterilizing agents, the oldest is that of drugs by the mouth. Considering only those of modern times, we have as favorites quinin sulphate, salol, hexamethylenamin, acraflavin, and the most recent, hexyl resorcinal.

If we concede that hexyl resorcinal is the best possible urinary antiseptic for oral administration, it still leaves much to be desired, for it is not of universal application, nor does Leonard, the originator of the product, make such a claim for it, yet we find it in quite common use for every type of urinary infection of every conceivable cause. The

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E. Spence DePuy (204 Dalziel Building, Oakland, California). M. D. University of California, 1894. Hospital connections: Urologist, Samuel Merritt Hospital; urologist, Providence Hospital. Scientific organizations: Alameda County Medical Society, C. M. A., A. M. A., American Urological Association, Surgical Association of Oakland. Practice limited to Urology since 1918.

merits of the drug are: It is stable; it is bactericidal in high dilutions of urine of any reaction (this last claim recently modified by Leonard); administered by the mouth, it is nontoxic; it is nonirritating to the urinary tract; and it is eliminated in high percentage by the urinary tract. But, and this is the point to which it seems we should frequently direct attention, Leonard specifically states that where there is no mechanical obstruction one may, under favorable circumstances, expect to sterilize the urine with hexyl resorcinal. Conversely, neither hexyl resorcinal, nor any other drug may reasonably be expected to overcome the handicap of mechanical obstruction and sterilize the urine under such conditions.

Henline, in reviewing the results of this new drug, in the Journal of Urology, states: "A rigid physical examination to eliminate focal infection is necessary, as well as a complete cystoscopic study." It is not reasonable to use hexyl resorcinal empirically, merely because there is pus in the urine, nor should one under such circumstances feel disappointment that results are unsatisfactory. Of therapeutic agents administered subcutaneously or intravenously, we have as outstanding examples, vaccines, and chemicals. Of the latter, the only one which it seems to us merits consideration is mercurochrome-220.

Of vaccines, it may be said that they have had their trial. Unfortunately, they are still more largely used than circumstances justify, that is to say, without investigation of the cause of urinary infection. In suitable cases, they have occasionally been successful—but certainly in no case where infection is due to or aggravated by mechanical obstruction.

Mercurochrome, evolved at the Brady clinic, has an undoubted place as a urinary antiseptic. We are beginning to pretty well appreciate the value of this drug, for both topical application and intravenous use, but the appraisal we place upon this agent is rather often misapprehended by physicians whose work is less restricted. Young, certainly, might be expected to claim for the drug all that can be hoped for from it, and, though he reports results accomplished with it by others which he has not himself duplicated, in his own investigations he limits himself to very careful statements. In a recent article his own words are: "There are a number of cases treated in the Brady Institute in which intravenous use of mercurochrome failed to effect sterilization." This tends to confirm the assertion that treatment must be based on recognition of the cause of the infection, and directed toward removal of obstructing factors.

As to drugs administered by instillation: The ones which have survived the severe trials of time are but three—nitrate of silver, silver colloids and mercurochrome.

With regard to the practical results in sterilizing the urinary tract by introducing these agents, each is probably equally serviceable, and each has its indications, though not one of them, through its action as a germicide alone, is sufficient to subdue infection. Realizing the fact that, to introduce these drugs it is necessary to pass an instrument into

the bladder, the ureter, or the kidney pelvis, it will be appreciated that by these procedures one has at least temporarily overcome mechanical obstruction and thereby measurably encouraged the escape of stagnant urine. The fact that at the same time one introduces a sterilizing agent is undoubtedly of some importance. But the point of the matter, as we see it, and which we think should be more generally broadcast, is that results are favorable not so much in proportion to the particular drug one employs, as to the success with which obstruction is overcome. A recent article by Davis, long associated with Young at the Brady Institute, thus summarizes the matter: After careful thought, he makes the statement: "At the present time there is no known drug which may be given by the mouth and which may be depended upon to prevent the growth and development of bacteria within the urinary tract." And adds: "Promiscuous medication with so-called urinary antiseptics without painstaking investigation to eliminate mechanical or systemic causes of infection is distinctly contraindicated."

May we not feel that upon urologists rests an obligation to keep continually before those whose treatment of urinary infections is only occasional the following facts:

It is always of importance to search for the cause of the infection, and that empirical drug administration cannot be relied upon to accomplish results which necessarily depend upon careful investigation and accurate diagnosis.

That it is always necessary to overcome urinary obstructions, whether in the urethra, at the bladder neck, in the ureter, or in the kidney before satisfactory results from germicides may be expected.

Whereas we have new drugs both for oral and intravenous administration, and these drugs represent undoubted progress and are exceedingly valuable therapeutic agents which make sterilization of the urinary tract less difficult than it has been in the past, even now such urinary sterilization is not an easy and simple procedure.

#### DISCUSSION

MILEY B. WESSON, M. D. (1275 Flood Building, San Francisco):—This is an exceedingly sane and constructive paper in that while the therapeutic merits of no drugs are endorsed or assailed, the reader's attention is focused upon the fact that indiscriminate drugging without a definite diagnosis is not only unscientific but inexcusable.

Dysuria and the presence of pus and organisms in the urine are not sufficient to warrant the indiscriminate use of the latest urinary antiseptics recommended by high-powered drug salesmen or newspaper propaganda. A diagnosis should be made before any therapy is instituted and if the attending physician is not equipped to make the diagnosis he should call in a competent urologist. A bacilluria may be transitory. Frequently, if there is an active focus of infection in the body, or more commonly constipation, due to a statis of the colon with the resultant overloading, myriads of organisms are excreted through the kidneys. This process is harmless if the germs pass onward, but the reverse is true when there is a mechanical obstruction somewhere in the urinary tract, which permits of the formation of a residual puddle to function as an incubator for organisms.

Whenever a housewife finds an obstruction in the kitchen sink she immediately calls in a plumber to destroy the stricture and provide free drainage before serious trouble results. Not even the most ignorant layman would experimentally pour drugs at 10 cents a capsule four times a day for three months down a drain pipe to relieve an

obstruction of an unknown nature before consulting a hydraulic expert.

Pediatricians still "salt out" bacteria in pyelitis by the weekly use of sodium bicarbonate, alternating with urotropin and sodium acid phosphate. The procedure is generally satisfactory, but unfortunately, renal malformations with resultant pyonephrosis are relatively as common in children as in adults. In the past women were often "pronounced delicate" and in such cases "colds in the bladder" were a common complaint. Even today buchu or urotropin (in valueless 5 grains every four-hour doses) are prescribed for a cystitis without even an examination to determine whether the burning is due to a cancer in the bladder, tuberculosis of the kidney, or a highly concentrated acid urine.

Urinary antiseptics are of inestimable value and those who have introduced the various ones of proven merit have uniformly been very conservative in their statements of the therapeutic possibilities. However, all such drugs are in danger of being relegated to oblivion by the absurd claims of the over-enthusiastic pseudo-scientists who forget that no stream can be purified unless there is free drainage. It is just as unreasonable to attempt the cure of pyelitis by kidney lavage in the presence of a median bar at the vesical orifice as it is to clear up tuberculosis of the bladder, secondary to a renal infection, by the injections of Gomenol or Rivenol. Doctors Reinle and DePuy have very forcibly emphasized the fact that a diagnosis must be made, the focus of infection removed, free drainage provided and that not until then are urinary antiseptics in order.

H. A. ROSENKRANZ, M. D. (1024 Story Building, Los Angeles)—Experience has proved that it is always timely to emphasize fundamental facts. It is so pleasant for the human animal to speculate and gamble, in other words, to be empirical and to "try something" rather than to diagnose the cause of the infection and cure the patient by removing the cause. Humans love the occult and mysterious. Even we, as physicians find it necessary to have continually impressed upon us the necessity of keeping close to rational fundamentalism lest we get out of the habit of thinking logically—to approach the method of the charlatan, cultist, or faddist, who must do something for, or rather to his patient, on the strength of a guess diagnosis, either because diagnosis is beyond his ken or because it does not thrill his experimental, therapeutic form of mind, so that finally, the patient, his money gone, wonders what it has all been about and falls upon the idea that perhaps he needs a specialist to at least diagnose his case and perhaps, against the inclination of his own speculative and experimental form of mind, but out of economic necessity, seeks services at some state charitable institution where there is a staff of first-class specialists available.

How superfluous sound the admonitions: (1) Thou shalt not massage the prostate for tuberculosis of the kidney; (2) Thou shalt not massage the prostate for papilloma of the bladder; (3) Thou shalt not massage the prostate for prostatitis when the prostatitis is due to metastasis from peridental abscess, tonsillitis or other focal infection.

Cases like the above have been met with by me recently. The papilloma case had been massaged by a general practitioner for six months. An unusually severe bleeding finally scared the patient into consulting a specialist. The tuberculosis of the kidney case had been massaged for three months by a very good but too busy urologist. I am meeting with many cases of pus in the urine in which the pus is traced to the kidney or prostate, or both, and in which cases the primary focus is found around the teeth. I regard abscessed teeth to be the principal cause of kidney stone.

Doctor Wesson has aptly mentioned the rôle that colon bacillus plays in keeping up some kidney infections. About ten years ago at the California Medical Association meeting in Coronado, Doctor Stewart, I believe, read a paper on kidney infection. Dr. Charles Lockwood, in discussing the paper, stated that he had been successful in relieving or curing his patients, but that remissions occurred in a certain percentage. I followed Lockwood in the discussion and called attention to the good results that are frequently obtained by controlling constipation with castor oil and other intestinal eliminative measures, to cause elimination of the germs before they migrate through the eighth of

an inch that separates them from the kidney. At the present time I would amplify this by suggesting not merely removal of the focus in the intestine, but also that of the teeth, tonsils, etc. If cystoscopy would include more x-rays of the teeth and fewer pyelograms our diagnoses would be finer.

Urotropin! "What's in a name?" Not much, but enough to cause the laity and some of the physicians to prescribe it for any and every ailment of the urinary tract, even though a large percentage of the patients are uncomfortably and harmfully irritated (kidneys and bladder) an hour or two after each dose. Urotropin is, however, effective in many a case of chronic or subacute kidney infection caused by the colon bacillus.

Papers such as this, simply and tersely written, are truly educational to profession and laity alike. I feel that if we would all write in the simple and effective style that DePuy and Reinle have done, and if the papers were made accessible to the public, much good would redound to doctors and patients.

George W. Hartman, M.D. (999 Sutter Street, San Francisco)—The authors have again made a plea for accuracy in diagnosis, perhaps the most essential thing in current day medical progress. The refinements which have been introduced in the manufacture of drugs in recent years have reduced in a large measure their unfavorable actions and increased their therapeutic ones. This has had a tendency to encourage their exhibition at times in an effort to see "what they will do."

General practitioners are not to be scolded for making these therapeutic tests. It is not so long since, in the absences in more exact means, that this was an approved form of treatment. However, when one considers the changes which take place in drugs administered by mouth, passed through the digestive tract and eliminated via the blood through the kidneys, or in those carried through the blood stream to the kidney, or those carried directly into the kidney and coming in contact with diluting urine, he must realize that the action there is quite different from that in the laboratory, nor are all clinical applications identical. Even with the refinements of the newer drugs the possibility of injurious effects is to be considered. It is not always possible to destroy infection without some injury to the host; therefore, the importance of maintaining that accuracy of diagnosis far exceeds any other consideration.

It is incumbent upon urologists then, as the authors suggest, to bring to the notice of the general practitioner the most recent and modern means of diagnosis so that applications can be made as directly as possible and to involved regions, thereby effecting an economy of time, cost, and suffering. There is no part of the body in which mechanics plays a more important part than in the urological tract.

ROBERT V. DAY, M. D. (Detwiler Building, Los Angeles)

—The paper of Doctors Reinle and DePuy is unusually
timely. Oddly enough, doctors in general, when an opportunity presents, respond to a fad in just about the same
way women respond to new styles in hats or other wearing apparel.

A long time ago abdominal surgeons discarded the use of bactericides in the abdominal cavity. Experience showed that all in all they did more harm than good. The same is true in most every branch of medicine, yet they want to touch the end of the rainbow and obtain miraculous cures in infection of the urinary tract by some unusual respectively.

In infections of the gall bladder, appendix, frontal sinus, tonsil, bone infections and so on down the line through most of the organs and tissues of the body, the doctor in charge relies first on the patient's resistance and second on drainage, whether by natural means or through a surgical procedure—this drainage often entailing the amputation of the organ, as appendectomy or tonsillectomy.

About the only exception to this rule is the employment of sprays by pharyngo-laryngolists which after all, are used not because they are germicidal but because of the anesthetic and soothing effects brought about principally through their action on the caliber of blood vessels.

Everyone, of course, uses iodin or some analogous chemical to sterilize the field of operation, but when once an infection is established in practically any organ, it is

beyond the reach of any loosely applied or internally administered germicide. The particular infestations for which we have chemical specifics, namely, malaria, syphilis, etc., are, if one recalls, not due to in ection but to parasitic infestations other than bacteria. I know of no single disease against which there is a chemical specific, when that disease is caused by cocci or

To look for these ideal shortcuts in urological practice often means that the one so looking is either lazy or dodging the issue. Accurate urologic diagnosis means precise and painstaking work. As a rule there is no substitute for this as a preliminary efficient therapy.

It is a sad commentary on the physicians to be carried away by such fads simply because of glaring promises by

#### THE PRACTICAL VALUE OF THE INTRACUTANEOUS TUBERCULIN TEST

By ROLAND P. SEITZ AND LLOYD B. DICKEY \* (From the Division of Pediatrics, Stanford University Medical School)

In a small number of patients we find the size of the tuberculin reaction in children classified as active to be

much larger than the average.
In our hands the D'Espine sign was value!ess.
The extent of the bronchial markings in the roentgenorams of the chest may be significant in suspected tuber-culosis. The amount of calcification showed no correlation with other evidences of tuberculosis.

The local incidence of tuberculous infection would seem

to be about 25.2 per cent for all children under age four teen and 42.6 per cent between twelve and fourteen. This

is lower than reported for other urban communities.

We believe that a routine tuberculin test is warranted in all children regardless of their complaints.

A positive tuberculin test should indicate a complete investigation, including roentgenograms of the chest.

Discussion by Harold K. Faber, San Francisco; Clain Fanning Gelston, San Francisco; William C. Voorsanger, San Francisco.

INCE Von Pirquet 1 first established, in 1908, a method to detect tuberculous infection by a skin test numerous reports have appeared in the literature.

The following study was undertaken with the support of the San Francisco Tuberculosis Association. The work was started to determine the incidence of this disease for this vicinity; to correlate the history, physical and radiological findings and from these to determine the practical value of the tuberculin test.

While the work is as yet only in the initial stage, enough data have accumulated from which, we think, to draw preliminary conclusions.

In our study five hundred children, ranging in age

from infancy to fourteen years, were tested. They were from the Stanford children's clinic, unselected, and taken regardless of complaints. The intracutaneous method was used and a uniform standard dose was given. This was 1/10 cc. of a 1:1000 solution of Koch's old tuberculin in normal saline thus making a standard of 1/10 mg. of tuberculin for each patient. The test was done on the flexor surface of the forearm and controlled with an intracutaneous injection of 1/10 cc. of normal saline solution, given at some distance below the tuberculin test.

Happ and Casparis 2 advise the use of a control solution containing an amount of glycerine broth equivalent to that in old tuberculin. The use of a control while theoretically correct is not a matter of general practice, probably because protein reactions, such as might be obtained from broth without bacterial growth, fade quickly and have disappeared at the end of the twenty-four or forty-eight hours when clinic patients present themselves for inspection. In hospital patients it is not uncommon to see these transient reactions.

An erythema five mm. in diameter at forty-eight hours was taken as the minimum positive tuberculin reaction. On those patients with positive reactions a history was taken, a physical examination performed and a roentgenological examination made of the chest. An attempt was made also to obtain body temperature at four-hour intervals over a period of five days. This was found to be impractical, as were sputum examinations, except in patients who later entered the hospital.

Of the five hundred children tested 126, or 25.2 per cent, reacted positively and 374, or 74.8 per cent, negatively.

The age incidence of the positive ones was tabulated with the following result:

		1	[AB]	LE I						
		Tale-	_	—F	emal	e	-Total-			
	No.	No.	%	No.	No.	%	No.	No.	%	
Age	done	pos.	pos.	done	pos.	pos.	done	pos.	pos.	
Under Age 4	47	8	17.0	62	4	6.4	109	12	11.0	
4 to 8	98	24	24.5	95	22	23.2	193	46	23.8	
8 to 12	81	26	32.1	63	19	30.2	144	45	31.2	
12 to 14	31	14	45.2		9	39.1	54	23	42.6	
Totals	257	72	28.0	243	54	22.2	500	126	25.2	
Totals	. 401	16	40.0	410	9.4	44.4	200	120	40.4	

If this incidence is graphically charted (Chart I), it shows a steady rise in the percentage of positive reactions directly proportionate to the ages of the patients male and female.

The rest of this paper will deal entirely with patients who reacted positively; study of negatives is pending.

Attention was concentrated on the tuberculin reaction. In nearly every instance induration was present with a considerably larger area of erythema peripheral to it. The induration was considered the more significant and formed the basis for our measurements. It averaged a little less than 14.5 mm. in diameter. The six patients with active tuberculosis averaged nearly twice this or 23.5 mm. Three of these had active bone foci in addition to those in

Analysis of the histories of the positively tuberulous patients revealed that the total number of males was approximately 28 per cent of those tested, females, 22 per cent.

About 60 per cent of all patients gave no history

<sup>\*</sup>Roland P. Seitz (490 Post Street, San Francisco).
M. D. Stanford, 1923. Graduate study: Division of Pediatrics, Stanford University Medical School, 1923-26. Present hospital connections: Stanford University Hospital. Scientific organizations: San Francisco County Medical Society, C. M. A., A. M. A. Present appointments: Chief of Clinic and Clinical Instructor of Pediatrics, Stanford Medical School. Practice limited to Pediatrics.

Lloyd B. Dickey (Stanford University Hospital, San Francisco). M. D. University of Minnesota, 1923: A. B. Fargo College, 1915; M. A. University of Illinois, 1917; B. S. University of Minnesota, 1923: B. M. University of Minnesota, 1923: A. B. University of Minnesota, 1923. Graduate study: State Hospital for Crippled Children, Phelan Park, St. Paul, Minn., 1923; Hennepin County Tuberculosis Sanatorium, Oak Terrace, Minn., 1923; Lane Hospital, 1924-26. Previous honors: Graduate Assistant in Zoology, University of Illinois; Instructor in Anatomy, University of Minnesota; Assistant in Morphology, Puget Sound Marine Biological Station. Present hospital connections: Lane Hospital, Pediatrics. Present appointments: Instructor, Department of Medicine, Division of Pediatrics, Stanford Medical School. Practice limited to Pediatrics since 1924.

of exposure to tuberculosis, 23 per cent a definite history. Of the latter, 3 per cent had a history of double contact. In slightly over 7 per cent the history was doubtful and in about 9.5 per cent it was unknown.

Complaints at the time of examination were varied. Eleven, or slightly over 8.5 per cent, of the 126 positives came to the clinic for examination because of exposure to tuberculosis in the home. Of the remaining patients 27, or about 21.5 per cent, had complaints which might be considered suggestive of a tuberculous infection. Chronic cough, failure to gain weight, marked underweight, night sweats and hoarseness were among these. Eightyeight patients (about 70 per cent) had complaints not suggestive of tuberculosis.

Since both measles and pertussis have been said to predispose to tuberculosis infection we obtained, where possible, the history in regard to these infections: 62 per cent had a history of pertussis, 21 per cent negative and in 17 per cent the history was unobtainable. Fifty-eight per cent had had measles, 25 per cent negative, and in 17 per cent the history was not obtained.

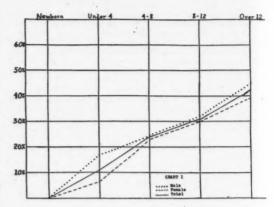
In only seven patients, slightly over 5 per cent, could we obtain a history of phlyctenular conjunctivitis. Of these, five were of girls and two were of boys, the youngest 2½ years.

Of the patients examined, about 39 per cent had had their tonsils and adenoids removed. In the remainder these might be considered as a focus of infection.

In considering the weights, we arbitrarily accepted all that were less than 10 per cent above or below the average for height, age and sex, as normal. Baldwin-Wood standard weight tables were used to determine variations. Eighty-six patients, or 68.2 per cent, were within the standard limits of normal weight; twenty-six patients; or about 20.5 per cent, were 81 to 90 per cent of average weight; Four patients, or over 3 per cent, were 80 per cent or under. Six patients, or 4.7 per cent were 111 to 120 per cent of average weight; in two the weight was over 120 per cent of the average, and in two the weight was not taken.

Many of our patients were children too young to permit the elicitation of the whispered or spoken voice and in them we considered dullness at, or below, the spine of the fourth thoracic vertebra as equivalent to a positive D'Espine sign. In the remainder, the complete D'Espine Test was carried out by means of the spoken and whispered voice. Thirty-three, or about 26 per cent, gave a positive D'Espine Sign. Of these, 16 showed signs of enlarged tracheo-bronchial nodes in the roentgenograms and 17 did not. In 83 or about 66 per cent of the children examined, the D'Espine sign was negative. Thirty-one of these, or 24.5 per cent, gave roentgenological evidence of tracheo-bronchial glandular enlargement, and 52, or about 41 per cent, were negative. In ten patients it was not possible to examine for this sign.

These results make it evident that the D'Espine sign was of doubtful value in this series. This was also the finding of a committee appointed by the National Tuberculosis Association.<sup>3</sup>



Definite paravertebral dullness was present in ten of the children examined; 47, or about 37 per cent, showed radiological evidence of enlargement of the tracheo-bronchial lymph glands, and 69, or about 55 per cent, showed no such evidence, in ten, roent-genograms were not taken.

The extent of the bronchial markings in the lung fields was noted. These were grouped into three classes on the basis of their extent into the lung parenchyma. The lung fields were divided into thirds by lines concentric to the outline of the chest. The inner field was called the first; the intermediate the second and the peripheral one the third.

Of 121 patients in whom roentgenograms were taken, six, or about 5 per cent, showed bronchial markings extending only within the limit of the first field; 94, or over 77 per cent, extended into the second zone and 21, or about 17 per cent, ran into the third.

The amount of calcification was graded by counting the actual number of apparently calcified areas in the lung fields. The findings were placed in three groups. Those having three or less of these areas were graded one plus; those having more than three and less than twelve, two plus; and those having more than twelve, three plus. Of the 121 children, three showed no discernible calcification; 23, or 19 per cent, were placed in the first group; 76, or about 63 per cent, in the second group and 19, or 15.7 per cent, in the third group.

We searched in every roentgenogram for a primary parenchymatous lung focus such as Ghon 4 demonstrated to be present in nearly every child with tuberculosis. All areas of calcification outside of the hilus region were accepted as primary foci except old calcified cavities which were almost certainly tuberculous. Doubtful areas were not included. Eighty-seven, or 72 per cent of our children, showed one or more lesions such as we have mentioned and 34, or 28 per cent, were negative. Only two had cavities and in one of these the cavity was almost certainly healed.

On the basis of all the data at hand, namely, the history, physical examination and roentgenogram, we attempted to classify patients as either active, suspicious or healed. This was done without reference to the tuberculin test. No child was found who could be considered absolutely negative: six, or 5 per cent, were placed in the active group; 24, or 19 per

cent, in the suspicious group and we concluded that

91, or 76 per cent, had healed lesions.

It will be noted that all of the patients with positive tuberculin reactions showed other evidence of tuberculous infection. The 42.6 per cent between 12 and 14 years who reacted positively might therefore indicate the incidence of tuberculous infection for the residential area at this significant age period. This incidence, 42.6 per cent, is much lower than that usually reported with the less sensitive Von Pirquet test for this age group. Such studies from the larger cities are shown in the following table:

TADE TO 9

	1.2	ABLE 2			
Author	Date	Location	Age Yrs.		posi-
Hamburger and Monti 5  Von Pirquet 6 Hoffa 7  K. Barchetti 2 Ferguson 9	1907-08 1919-21 1917-21	Vienna Vienna Barmen Gratz Saskatche-	12-14 12-14 11-14	*53 81 206 158	94.3 81.5 63.1 58.0
Veeder and John-	1341	wan	10-14	795	57.4
Son 10 Sill 11 Furstner-Rissel-		St. Louis New York		*112 27	48.0 48.0
Slater 13	1921 1924	The Hague Minnesota, rural		117 383	46.3 12.0
		rural	10-14	909	6.0

<sup>\*</sup> Hospital children.

1932,5096 In those children reacting positively we wish to emphasize the relative importance of certain roentgenological findings in diagnosis.

While only 13.2 per cent of our patients with healed lesions showed increased bronchial markings extending into the third zone, 25 per cent of those with suspected tuberculosis, and 50 per cent of the

active ones, reached this area.

The amount of calcification was not, however, as helpful. Sixteen and three-tenths per cent of those children with healed lesions showed the same marked degree of calcification as that noted in a similar proportion of those with suspected and of unquestionably active tuberculosis.

We advocate a routine tuberculin test on every child. We feel that most of the thirty with active and suspicious tuberculosis, constituting 34 per cent of the positive reactors and 6 per cent of the 500 children tested, would have escaped detection or diagnosis for a much longer period were it not for the thorough examinations they were given simply because of the positive skin tests.

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#### DISCUSSION

HAROLD K. FABER, M. D. (Stanford University Hospital, San Francisco)—It is the policy of the San Francisco Tuberculosis Association, under whose auspices the present study has been carried out, to concentrate its forces on the problem of tuberculosis in childhood. The reasons for this policy need no explanation to the medical profession. Essential to the prevention and control of the disease in any community is a survey of the local field to estimate how heavily it is infected. To obtain this knowledge we should be able to study a series of representative crosssections of the community, examining a large number of unselected individuals, sick and well. While these conditions are not ideally attainable, we have in our children's clinics a fair approximation to them, dealing as they do largely with patients coming for minor complaints and increasing numbers with none. The study of the incidence of the tuberculin reaction here presented, which is part of a general survey in conjunction with the University of California children's clinic, therefore supplies us with the basis for an estimate of the magnitude of the tuberculosis problem among the children of San Francisco. Such studies are invaluable and should be carried out in every large city as a sort of stock-taking.

It is worth pointing out to the general practitioner that, although it is a little more difficult, the intracutaneous method of testing is far more reliable than the Pirquet scratch test. As used by the authors of the present paper, the test gives about 80 per cent positives in infected children as against 50 per cent for the scratch method. This has been shown clearly by Happ and Casparis.

CLAIN FANNING GELSTON, M. D. (384 Post Street, San Francisco)—In an analysis of over three thousand Von Pirquet reactions performed at the University of California Hospital outpatient department, the group being un-Hospital outpatient department, the group being unselected children, our percentage of positive reactions was higher in spite of the fact that, unquestionably, the intradermal reaction is more sensitive. On the other hand, for the age groups, the curve in our series followed very closely that of Seitz and Dickey.

The point brought out in our investigation, and of great interest to me, was that in relation to the incidence of measles and whooping cough as a forerunner of tuberculous infection, our figures were practically identical with the two diseases in both the positive and the negative reactors, namely, 42 per cent. This, of course, does not mean that these two diseases do not have a great influence on the course of the disease, should tuberculosis infection be acquired. It also does mean that one should not be unduly alarmed, given a child showing, for instance, tracheo-bronchial adenopathy and such a past history, that the process is tuberculous without other confirmatory evidence.

Statistical papers such as this one, based on carefully controlled and scrupulously honest studies, are of immense value in determining the incidence and in helping us to control the prevalence of many diseases.

WILLIAM C. VOORSANGER, M. D. (490 Post Street, San Francisco)—The excellent work done by Seitz and Dickey at Stanford Clinic and certain conclusions reached, justi-fies the fostering of this experiment by the San Francisco Tuberculosis Association. We are interested primarily in ascertaining, (1) whether the contact of young children with tuberculous relatives induces active tuberculosis, and (2) whether through routine painstaking examination active tuberculosis can be discovered in early childhood. The authors have stated that in 60 per cent of their children there was no exposure to tuberculosis, and only 8.5 per cent of their 126 "positive cases" came because of exposure to taberculosis at home. These figures are at variance with accepted belief and if continued may change our present point of view that contact with infected surroundings is a leading etiological factor in the causation of tuberculosis in young children.

The point which principally impresses me in this paper is that the authors use the cutaneous tuberculin test merely as an indicator, not as a positive diagnostic sign, drawing conclusions only after a complete clinical and x-ray examination. Fishborg does not believe that children between three and five years of age with positive skin reactions are doomed necessarily to active phthisis. The authors themselves have shown that the smallest per cent of positive reaction (6.4 per cent) occurs under age four. At this age, or before, we should like to detect the incidence of tuberculosis, not in later ages after it has become active. The largest percentage of positive reactions in the patients of Seitz and Dickey was between twelve and fourteen years. Were not many of these in patients with healed lesions and if so what percentage? The authors have rightly shown the valuelessness of the once-accepted D'Espine sign, with which view most clinicians agree, and stress their x-ray findings. Armand-Delille at the Herold Hospital, Paris, uses the x-ray routinely in infants under one year of age and places great diagnostic importance on his roentgenological findings.

The present authors have made an interesting classification with their three groups of x-ray findings, based upon involvement of lung parenchyma. Perhaps greater study and investigation along this line may help to diagnose tuberculosis in the young infant. We who treat principally adult tuberculosis realize that the disease can only be eradicated by detecting and controlling it in infancy. The work just presented should be continued because it is not only of scientific interest, but of benefit to the community at large.

AUTHORS (closing)—As noted by Voorsanger, the largest percentage of positive reactors was in the twelve- to fourteen-year group, and most of these gave evidence of healed lesions. All of the children with active tuberculosis were younger than this.

culosis were younger than this.

We wish to thank Doctors Faber, Gelston, and Voorsanger for their interesting discussions.

Simple Classification of Goiter—J. Earl Else, Portland, Oregon (Journal A. M. A.), presents a pathologic and a clinical classification of goiter, the latter being an amplification of the former. Else holds that the term goiter should be limited to those pathologic processes that directly result from an iodin deficiency. There are two main divisions in his classification: colloid and hyperplastic. The second group is divided into the cellular and the acinar. The cellular is divided into the nontoxic and the toxic; the latter into adenoma, adenomatosis or diffuse adenomatous and compensatory hyperplasia. Each of these groups is further subdivided into the nontoxic and toxic. The clinical classification is based on the presence or absence of the symptoms and signs of hyperthyroidism. If there is no evidence of hyperthyroidism, the process is spoken of as simple or nontoxic; but if there is evidence of hyperthyroidism, it is then referred to as toxic. The acinar type always begins as simple or nontoxic and then later often becomes toxic. True colloid goiter is never toxic, but sometimes there is hypofunction due to alteration in cell shape lowering its activity in addition to the primary iodin deficiency. This classification meets the requirements in being simple, including all primary pathologic processes, covering all the clinical types, being descriptive of each, and not adding a single new term to an already overcrowded literature.

Sulpharsphenamin in Treatment of Warts—In the treatment of plane warts of the face, Richard L. Sutton, Kansas City, Missouri (Journal A. M. A.), secured very satisfactory results from the intramuscular injection of sulpharsphenamin. The average dose has been 0.4 gm., and only sulpharsphenamin has been employed. The drug is dissolved in a minimal amount of sterile water, and injected directly into the gluteal muscles. In each instance only one injection was required.

#### PULMONARY NEOPLASMS †

A DISCUSSION OF THEIR INCREASING PREVALENCE DIAGNOSIS AND TREATMENT

By C. E. ATKINSON \*

LUNG TUMORS occur more frequently than commonly supposed. Recent statistics reveal a considerably larger number of primary lung cancers—an increase in part due to greater diagnostic acumen, but in part actual. As a cause, evidence points most strongly to the influenza epidemic.

The symptoms of tumor and tuberculosis are almost identical, but the age periods are usually different. However, carcinoma tends to appear earlier in life than formerly. Yet if symptoms first appear after 40, cancer should be kept in mind. Pain, often prominent, tends to occur early, to persist or recur and to progress. Often worse at night, it may seem deep in the chest. Pain persisting after effusion forms is especially suggestive. Pain may be referred to the epigastrium; or shoulder and arm pains may occur with sympathetic phenomena and simulate a cord or meningeal lesion. Pronounced throat symptoms may occur just as in pulmonary tuberculosis without laryngeal signs. Dyspnea disproportionate to the general condition, cyanosis, and venous obstruction are of particular import. Sanguinous pleural effusion occurs in both tuberculosis and cancer. A fluid which becomes bloody only after repeated tapping, which gives but temporary relief, is said to have special diagnostic value. In tuberculosis it is claimed the fluid is more often bloody on a first tapping and subsequently clear, and tapping usually relieves. Currant-jelly or prune-juice sputum is said to favor cancer. Rarely, tumor particles are expectorated, and certain polymorphous sputum cells are held pathognomonic. A normal pulse with fever is said to suggest cancer. Weight loss and cachexia develop later in lung cancer than in other malignancies.

Many now believe the local irritation from tuberculosis may give rise to cancer; and the two diseases not rarely coexist.

Physical signs are often negative and usually indefinite, which in itself is suspicious. Over the tumor, flatness tends to develop, and if accompanied by weak or absent breath sounds without rales, this is against tuberculosis, but may cause confusion with fluid or abscess. A neoplasm tends to push the heart and trachea to the opposite side, while scar shrinkage from tuberculosis draws these organs toward the affected side.

Special methods include the use of the bronchoscope and endoscope, which in skilled hands may yield valuable data. Roentgen study though ex-

<sup>&</sup>lt;sup>†</sup> Abstract of an article read before the Section on Tuberculosis of the Los Angeles County Medical Society, May 25, 1926.

May 25, 1926.

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tremely useful is not infallible. Ordinarily a new growth produces a roughly circular shadow, which may originate either in the parenchyma or hilum, may or may not be circumscribed, and may be accompanied by smaller metastatic shadows. Multiple tumors usually cast larger shadows than tuberculosis, and the surrounding lung is clearer. Secondary carcinosis shadows are likely to be most thickly set at the base. The growth may show only as a haziness and x-ray evidence may even be entirely lacking, though it is rare to have negative findings when symptoms are present. If effusion is found, it should be aspirated and x-ray study made at once. A diagnostic pneumothorax may prove helpful. In doubtful cases of mediastinal shadow the esophagus may be filled with barium for screen study. Misleading conditions include intrathoracic thyroid, enlarged thymus, actinomycosis, nocardiosis, hydatid disease, encysted empyema, abscess, cold abscess, unresolved or caseous pneumonia, lung syphilis and aneurism. Benign lung tumors are rare, so the differentiation is mainly between carcinoma, sarcoma, lymphosarcoma, endothelioma, and Hodgkin's disease.

A few cases of successful surgical removal of lung tumors have been reported. Roentgen therapy has prolonged life for years in lymphosarcoma and Hodgkin's disease, even bringing apparent cure, and in cancer has produced a few favorable results. With deep therapy now in wider use, the outlook is brighter. Radium externally and bronchoscopically applied, was successful in one case. Among general remedies, selenium and copper have been used abroad with some success. A promising method is the intravenous use of lead, but this preparation is not yet obtainable for general use. For cancer, colloidal gold, and for sarcoma, Coley's fluid, merit trial, and thyroid therapy and iodides should not be disregarded. Potash, up to 90 to 180 grains a day, is also worthy of use. Many are accepting the view that there is some general predisposing factor, and cancer is rare among peoples who use no meat. A meatless nonstimulating diet in moderate quantity only should be advised, and intestinal stasis prevented.

Four cases, one primary carcinoma, one primary sarcoma with tuberculosis, one unidentified tumor which disappeared under thyroid therapy, and one probable primary carcinoma engrafted on tuberculosis and associated with syphilis, are cited.

The outlook is no longer hopeless, and with concentrated efforts it seems that in future years a not inconsiderable number of these patients will be saved.

Enormous Calculus Pyonephrosis—The case reported by Montague L. Boyd, Atlanta, Ga. (Journal A. M. A.), illustrates how painless an enormous enlargement of the kidney with very large calculi may be and the difficulty encountered at operation in such a condition. In this particular case an intracapsular enucleation of the kidney was done. The entire mass measured about 20 by 20 by 35 cm.; the decapsulated kidney, about 18 by 18 by 30 cm. It was lobulated, fairly firm, and uniformly enlarged. It weighed 196 gm. The stone paste weighed much more than that. Microscopic examination showed a mass of connective tissues with acute inflammatory processes and only an occasional glomerulus. The diagnosis was pyelonephritis, chronic and acute, and renal calculus.

#### CLINICAL NOTES, CASE REPORTS AND NEW INSTRUMENTS

#### SUPRARENAL HEMORRHAGE

REPORT OF A CASE IN A NEW-BORN CLINICALLY RESEMBLING INTRACRANIAL HEMORRHAGE

By ESTHER BRIDGMAN CLARK \*

(From the Division of Pediatrics, Stanford University Medical School, San Francisco, California.)

The occurrence of hemorrhage of the suprarenal gland in the new-born was first described by Mattei 1 in 1868, when he noted it in a statistical report of autopsy findings in fetuses and new-borns. Bilateral hemorrhage is more common than unilateral, but when the latter occurs the right kidney is more often involved than the left. It is more common in girls than boys.

Hamill<sup>2</sup> (1901) gives a very detailed review of the literature and 90 case reports from the literature and his own observation. Corcoran and Straus<sup>2</sup> (1924) also review the literature and note that about 100 cases have been reported. They add a case of their own in which the diagnosis of suprarenal hemorrhage was made in a five-day-old infant. Operation was performed, the hematoma removed and a bleeding point on the suprarenal gland ligated. Complete recovery ensued.

The etiology is obscure and is most likely not the same in all cases. Those hemorrhages occurring in stillborns or very soon after birth are considered by Rabinowitz 4 (1923) as being due to asphyxia. Corcoran and Strauss 3 also believe that in new-borns trauma and asphyxia play the most important rôles, the suprarenals being of very friable tissue and rich in blood vessels.

the most important rôles, the suprarenals being of very friable tissue and rich in blood vessels.

Some cases appear to be associated with sepsis, the blood culture having been found to be positive. Other causes that have been suggested are syphilis, hemophilia, thronbosis of the suprarenal veins, and compression of the vena cava by the liver.

thrombosis of the suprarenal veins, and compression of the vena cava by the liver.

Langlois and Chanin 5 (1893) produced engorgement of the suprarenal in rabbits by injecting B. pyocyaneus, Roux and Yersin 6 (1899) got the same result with B.

diphtheriae.

Many of the cases are associated with purpura, especially in older infants and young children. The possibility of the purpura bearing the same relation to the suprarenal hemorrhage that pigmentation of the skin bears to the diseased suprarenal in Addison's disease has long been considered.

The symptoms are variable, but for the most part resemble those of an internal hemorrhage. There is rapid shallow breathing, air hunger, restlessness, refusal to nurse, vomiting, fever, frequent convulsions, at times an increasing anemia is noticeable. In a few infants in whom the hemorrhage is very extensive the mass has been palpated. The colon may be compressed with symptoms of intestinal obstruction. In male infants swelling of the scrotum has been noted from pressure on the left spermatic vein in hemorrhage of the left suprarenal. In practically all of the cases reported sudden onset in previously normally behaving infants or children is the rule.

#### CASE REPORT

From the service of the Children's Clinic, Lane Hospital. Baby girl S., No. 151119. Born April 28, 1926, at 7:30 p. m. Parents were each 22 years old and healthy. The mother was a primipara and had a normal pregnancy terminating at term in an easy, normal, five-hour

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labor. Her Wassermann was negative. The baby was well developed and weighed 3680 gms. Cry was delayed for 20 minutes, then breathing was irregular and shallow, though the pulse was good. Bleeding time was 1½ minutes, coagulation time 3 minutes; however, 10 cc. of whole blood was given intramuscularly. After four hours, breathing became normal. April 29 at 9 a. m. nours, breatning became normal. April 29 at 9 a. m. temperature was 100.2 R. (had been over lights). Refused to nurse. At 2 p. m., after taking 20 cc. at breast, regurgitated and had a cyanotic attack lasting a few minutes. April 30, at 2 a. m., began having generalized convulsions lasting a minute and occurring every 15 to 30 At 8 a. m. there was moderate cyanosis, breathminutes. ing shallow and irregular, frequent convulsive twitchings of arms, hands, and legs. The fontanelle was rounded out but not tense. The possibility of intracranial hemorrhage was thought of and lumbar puncture done. Clear fluid under no increase of pressure was obtained; Clear fluid under no increase of pressure was obtained; it showed 140 red blood cells per cu. mm., mostly old. Respirations continued slow, irregular, and shallow. There were frequent severe attacks of cyanosis, slightly relieved by oxygen. By 6 p. m. the baby was constantly limp and the pulse was 70-80 per minute, and irregular. Death occurred at 11:20 p. m. (Age 52 hours.)

Clinical Diagnosis-Multiple cortical hemorrhages. A necropsy was done ten hours after death by Doctor William Ophuls. There was no evidence of subdural or intracranial hemorrhage, the meninges and brain were congested. Icterus neonatorum was present. There was a congested. Icterus neonatorum was present. I here was a small amount of sticky, bloody fluid at the base of the right pleural cavity. The right adrenal gland was almost totally destroyed by a large hemorrhage; the hemorrhagic mass measured  $3 \times 2 \times 1$  cm. The right kidney and left adrenal and kidney were normal. There were no other significant findings.

Anatomical Diagnosis-Hemorrhage of adrenal, right; icterus neonatorum.

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#### GIANT URTICARIA DUE TO DISEASED (PUS) TONSILS

#### CASE REPORT

#### By SAMUEL FLOERSHEIM, M. D., Los Angeles

A male patient in a tuberculous sanitarium was referred to me suffering from giant urticaria.

The history elicited the fact that three months previ-ously spiced chopped fish was served with other foods. Most all persons who had partaken of this fish became more or less decidedly ill. The medical director and as-

sistants did not eat any and they were not attacked.

The patient was first referred to a dermatologist, who tried every means known to him to control the attacks. The patient during these three months was also sent to and examined by the nose and throat specialist. The patient came to me with no improvement and with the decision that the tonsils should come out, as they may be a factor in the constancy of the attacks. The patient never before suffered with the attacks of urticaria and he was not seemingly ill with his pulmonary tuberculosis. He was rated as a good case, just past the incipient stage—not apparently quiescent—practically no cough or expectoration. Going over him quite thoroughly, even to x-rays and general laboratory work, nothing of especial note was encountered except some intestinal non-pathological parasites (Brem-Zeiler). He was vigorously

treated for this with no apparent good results. Abstinence from food and with very little water for two days would prevent the occurrence of attacks. These attacks would occur chiefly after midnight and would wane after 6 or 7 a. m. At times the urticarial lesions would persist until noon. Any and every food would cause attacks, He was protein tested for all and every food, dust, hair pollens, etc., some 180 or more in number by both a spe-cial physician in protein sensitization and at the Los Angeles General Hospital—all negative. To me the tonsils did not seem seriously diseased, and I believe bac-terial protein was also used in the test and found negative. After all the different tests and varied medication, diet, and hygienic measures were advanced and carried out, no progress was made. It was proposed to try a cool climate, and in the event of failure then as last resort to have a complete tonsillectomy performed. The patient left presumably for San Francisco or Portland, but turned up in Denver late in October or November. He was gone over very carefully and thoroughly again and the decision was not to do a tonsillectomy, but to do autohemic therapy. This likewise proved futile. All the while the patient did not lose much weight nor did his pulmonary tuberculosis progress nor did he feel very ill except only at the irregular time of outbreaks of the giant urticaria. After definite autohemic failure, noth-ing else left to experiment with and with the former suggestions of last resort of tonsillectomy, the patient asked and fairly insisted on trying out the operation.

Letter received from him four weeks after the operation stated: "I feel 90 per cent better and hope the other 10 per cent will follow soon." Four months later another letter received in which the information was advanced that the other 10 per cent had been accomplished. Eight months later I again interviewed the patient and he ex-plicitly stated that not a single attack of urticaria has appeared since the day of the tonsillectomy—eighteen or twenty months-in spite of the fact of his numerous attempts to bring on an attack by eating allspice, onions, horseradish, pickles, fish, condiments, and any and all irritating foods.

#### FOREIGN BODIES IN THE ALIMENTARY TRACT

#### By W. C. SHIPLEY, M. D.

During the past twenty-six years it has fallen to my lot to give advice to many mothers whose children have swallowed small toys and other objects foreign to the digestive system. The list includes marbles, small metal toys, buttons, screws, wire nails, tacks, pins, nickles, dimes, copper cents, small pieces of rags, rubbers, and other objects that have slipped my memory.

As my first experience with this line of work was in a mountain district where there were no hospital facilities or x-ray to aid in the diagnosis, and as something had to be done to appease the anxiety of the parents, espe-cially the mothers, the following line of treatment always served to bring the offending object safely through the alimentary canal in from twenty-four to thirty-six hours without harm to the patients who, in most instances, were children under 6 years of age.

Give the patient all the canned corn or beans that he will eat. This forms an indigestible mass about the object to be removed and at the same time acts as a skid to help it on its way through its tortuous passage. About two hours later a good dose of castor oil is administered, and the mother told to watch every stool that the child passes until the object is found. This line of treatment, while it may seem crude, is simple, safe, and sure.

Simple Goiter and Its Prevention - According to Simple Goiter and Its Prevention—According to David Marine, New York (Journal A. M. A.), the factors which cause simple goiter center about the supply of iodin and the needs, normal and abnormal, of the thyroid gland for iodin. Supplying this element in amounts that can be considered as roughly approximating the physiologic needs of the body has resulted in completely controlling the disease both in man and in animals.

#### - BEDSIDE MEDICINE FOR BEDSIDE DOCTORS -

An open forum for brief discussions of the workaday problems of the bedside doctor. Suggestions for subjects and discussants invited. Useful extracts from letters will be published.

# THE RELIABLE AND DEPENDABLE REMEDIES IN THE TREATMENT OF THE LATER MANIFESTATIONS OF SYPHILIS AND THE METHOD OF THEIR EMPLOYMENT

The Editor—The outstanding message one gets from a careful reading of this valuable discussion of the treatment of the late manifestations of syphilis is, that treatment of the patient rather than the disease should be a prime consideration, even more so if possible than in other diseases.

There are no otherwise healthy patients with tertiary syphilis; the disease in these stages is found only in persons already or coincidently more or less crippled with the same sort of failings that exist all but universally in nonsyphilities of comparable ages. To these, of course, must be added the degenerations and other consequences of the long drawn-out battle between parasite and host. These battle scars are not disease, but results, usually irremedial ones.

Syphilographers have emphasized the important fact that, if we could instantly destroy all the parasites in most late syphilities, we would still have an incurable patient. It is possible, to be sure, to arrest the disease, and it is possible often to help the patient to an improved degree of health, but much of such improvement is brought about by broadening management to include far more than antisyphilitic medication. It is encouraging to see this point emphasized by the discussants.

It is encouraging also to note the plea for essential individualization of syphilitic patients, an individualization arrived at by careful, frequent, complete examinations and the careful adjustment of the drugs and dosages of the powerful, poisonous, parisiticidal remedies to the needs and varied tolerance of the wide varieties of patients.

The wide interest in syphilis is indicated by these discussions. We received more letters about the discussion of the treatment of early syphilis in this department than any other of the subjects dealt with in "Bedside Medicine for Bedside Doctors." Several requests for this present discussion of the treatment of the later manifestations have been received.

Henry G. Mehrtens \*—Of the later manifestations of syphilis, neurosyphilis occupies an important place. Its treatment includes the same remedies found effective in the earlier lesions. These are used in a slightly different way, because in neurosyphilis the spirochete is much less accessible to spirochetocydal agent. The necessity of protracted treatment frequently necessitates the utilization of each remedy in turn so that the organisms may not acquire a partial tolerance to any one drug.

Intensive intravenous and intramuscular medications produce satisfactory clinical results as well as clearing up of spinal fluid in over 40 per cent of

all patients. Arsphenamine given in weekly doses for twelve weeks seems to me to produce a more satisfactory result than neoarsphenamine, although for office practice simplicity of administration is a strong recommendation for the latter drug. Sulpharsphenamine, because of its slightly increased ability to penetrate the meninges has been recommended as particularly effective in neurosyphilis. It would seem that in addition it has the power to attack organisms which have proved resistant to long-continued arsphenamine injections. Not the least of its virtues is the fact that it can be utilized intramuscularly when veins have been damaged by other treatment.

Mercury, whether used as rub, intravenously or intramuscularly, must always have a place in our scheme of therapy. In neurosyphilis the intramuscular injections, because of their slower absorption, are ordinarily more effective, although rubs, when skillfully and conscientiously given, are as effective as any form of treatment.

Bismuth is an exceedingly popular remedy at the present time; while it is doubtful it will ever replace mercury, still it may prove a worthy companion. Frequently alternating weekly intramuscular injections of bismuth and mercury, six weeks of each, will clear up a fluid resistent to arsphenamine and mercury doses. The iodides can be advantageously administered in moderate doses during rest periods.

Triparsamid, the newest addition to our armamentarum, finds its greatest use in paresis. It has the greatest permeability of all arsenic compounds. Given intravenously in 2 to 3 gram doses each week, for eight injections, then resting three weeks, it frequently gives remarkable improvement in mental symptoms. However, alone it does not readily clear up the spinal fluid, and should be combined with intramuscular injections of mercury or bismuth. Unfortunately the possibility of amblyopia must not be overlooked, even when the eyes have shown no previous involvement. Therefore this drug should be used after the other safer agents have been tried.

Intraspinous therapy is only indicated in patients resistant to the above measures. They should be executed only by one, both familiar with the technique and with access to proper laboratory facilities. Malarial treatment is still in the experimental stage. Apart from the specific remedies, there is a growing feeling that nonspecific reactions brought out by the intramuscular injections of milk, vaccines, etc., tend to stimulate bodily resistance.

Finally, no matter what combination of remedial agents seems best for the individual patient, the building up of resistance is a most important factor in treatment. Unless this is accomplished, no drug therapy will entirely succeed. Along these lines proper rest periods, observation of the urine, the weight, diet, exercise, exposure to sunlight, removal

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of focal infection, and even mental hygiene, will all count heavily in the end result.

The Editor.—It is hoped that other discussants will extend the scope of the discussion to include manifestations other than those of the nervous system. Every bedside doctor encounters and treats patients for the later manifestations of syphilis. What treatment is being used and how is of interest to all doctors.

John R. Frank \*—I believe that the large clinics and hospitals should use the newer drugs which are yet in the experimental stage, such drugs as triparsamid, malarial infections, bismuth. The patient must have strongly impressed on his mind the absolute necessity of a long and more or less unpleasant course of treatment. The probable results of failure to be treated should be pictured, examples of other patients cited, so that he may choose between the lesser of two evils.

To my mind the "reliable and dependable remedies" consist of arsphenamine, neoarsphenamine, the iodides, and mercury. Other remedies are still in the experimental stage and should be used with caution. Tertiary syphilis should be treated thoroughly and radically to the physiological limits of drugs. Arsphenamine may be given in 0.9 gm. doses and 0.9 gm. of neo given every six days, as practically all of the drug is eliminated in four or five days. Potassium or sodium iodide should first be given to the saturation point, i. e., to the appearance of a rash coryza, conjunctivitis, or a headache. It is best to begin with 20-grain doses and increase rapidly to 5-8 grams daily, well diluted. Since the iodides are rapidly absorbed, their intravenous use has no advantages. After saturation is reached, either mercury or salvarsan may be given. I personally use neosalvarsan, since I find it so much easier to prepare and the after effects are lighter than those of salvarsan, and the results over mercury are quicker and more spectacular. After ten doses of neosalvarsan, I follow immediately with a thorough course of mercury. The form of mercury given differs with each case as circumstances demand or permit. The intramuscular method using the salicylate is the surest, but I find that the average patient will not continue the treatment long on account of the pain occasionally encountered. They will not give themselves the rubs, so that the usual method is by mouth, using the protoiodide or mixed treatment. When the patient has good veins and the money to pay for it, the soluble forms of mercury intravenously are more desirable. Locally 1-2000 bichloride solutions are first used, then an ointment of 5 to 10 per cent ammoniated mercury.

In cerebrospinal syphilis after an injection of salvarsan I frequently drain off 10 or 20 cc. spinal fluid. This, theoretically at least, allows the salvarsanized blood serum to enter the cavities of the brain via the chorioid plexus. Lumbar puncture is

especially indicated for syphilitic headache. Intraspinal injection of salvarsanized serum should also be used where facilities permit.

Patients should have Wassermanns at stated intervals and receive treatment for three or four years whether the Wassermann is negative or positive, with rest periods of two to three months. In all antisyphilitic treatment the bowels must be kept well open and the kidneys constantly watched. Sodium thiosulphate should be on hand for use in case of an overdose of mercury or salvarsan.

E. M. Wilder \*- In treating the later manifestations of syphilis one should realize that such neurosyphilides as, because of their resistance to the ordinary methods of medication, require intraspinal treatment should not be treated by most bedside doctors. Intraspinal medication, the use of triparsamid, stovarsol, mercury cyanide intravenously for tabes, malarial and nonspecific protein therapy for paresis, and in general the use of all drugs and procedures the use of which is still in the experimental stage should be left to specialists and used only in hospitals or clinic with methods closely guarded and results properly checked and tabulated. In the treatment of the late secondary and ordinary tertiary lesions which are the proper subject of our discussion the reliable remedies are, as in earlier syphilis, arsphenamine, mercury, iodide, and bismuth, the safety and reliability of the latter being now firmly established. The dosage and mode of administration of these drugs will be altered in the treatment of late as compared with earlier syphilis, but the essential differences to be noted in the treatment of later syphilis exist because the human material, not the drugs, is altered.

In treating early syphilis a complete cure is the end in view. But when confronted by the later manifestations of the disease we cannot set our goal so high, and may consider ourselves fortunate if by our care and treatment we enable the patient to finish out his expectancy of life in happiness and apparent health even though his Wassermann reaction may neither become nor remain negative. In long-standing syphilis a balance has often been reached between the invading organism and the body, and we must be careful not to upset that balance through depressing the constitutional resistance of the patient by overwhelming him with too strenuous medication. A patient with late syphilis is usually a more fragile vessel for the exhibition of drugs than one in the earlier stages, both because he has been longer subject to the ravages of the disease and because he is himself older and more liable to organic deteriorations from the wear of life and from disease other than syphilis. For this reason perhaps more than elsewhere in medicine the physician must remember in treating late syphilis that he is primarily concerned not with extirpating the

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germs of the disease, but in restoring to comparative health and maintaining in comfort and safety a relatively fragile and always damaged human organism.

Too often in treating late syphilis the doctor's attention is centered on exterminating the spirochete and keeping the Wassermann reaction negative, and the patient's constitution is not sufficiently considered. This is not right. It is good practice to combat the spirochete, but the patient must not be forgotten. His body should be supported in its combat with the disease and he should be treated, not for syphilis alone, but for the accumulated disabilities of an organism long syphilized and in the last third of life.

The first step in treating late syphilis should be a complete physical examination and a close estimate of the patient's physical condition. Consider particularly the excretory organs and the circulatory system. Impairment of either will necessitate reduced dosage and increased attention to elimination. The mouth and teeth should be kept in good condition and gastrointestinal disturbances corrected. "A clean healthy mouth and a tolerant digestion make the vigorous use of mercury much easier." We must be careful of the heart muscle. Tonic doses of digitalis are valuable even when digitalization is not necessary. The condition of the optic nerve should be determined before beginning the use of any arsenical. The kidneys particularly need watching and when they are damaged, treatment either with mercury, the arsenicals, or bismuth requires much more care and caution than with other patients.

The key to the treatment of late syphilis is moderation. Intensive medication has little place here, and all treatment should be primarily symptomatic and only incidentally directed to the cure of the disease. There is a tendency to give less arsphenamine in late cases than early, but that is a mistake. Late cases should receive as large totals of the arsenicals as the early ones, but in smaller doses stretched over longer periods. It is evident, however, that when arsenicals are used alone in late syphilis, the central nervous system is not protected and the courses of arsenicals should be followed and alternated with courses of mercury and bismuth, as in the earlier treatment of the disease and in giving courses of these drugs in late syphilis the rule above suggested for the arsenicals applies: give smaller doses stretched over longer periods than in earlier

Unless an urgent need for controlling symptoms requires that one begin with arsphenamine it is better to begin with small doses of mercury and iodide for a few weeks and then shift to arsphenamine, beginning with a very small dose and going up to a maximum of not to exceed .6 neoarsphenamine (which is the best all-round preparation of the arsenicals for the general practitioner) every five days or a week. Bichloride of mercury, 1 grain a week, is a good preparation and sufficient dosage. Bismuth in the bismudol preparation, not to exceed 3 grains a week, is a good preparation and dosage. Bismuth seems to be of more value in late than in early cases. It apparently controls tabetic pains in some cases and sometimes converts to negative a persistently positive Wassermann.

As to the iodides, of which sodium iodide is the preferable preparation, although they are most necessary in the treatment of late syphilis, it must be remembered that their effect on syphilis is an incidental rather than a fundamental one. They are not spirocheticides, but act by promoting the absorption of fibrous and granulomatous tissue and should always be administered with mercury or bismuth to supply the spirocheticidal effect. Iodide should be given, by the familiar method of gradually increasing dosage and occasional remissions, quite constantly throughout the duration of a late syphilis, with maximum doses not exceeding for ordinary purposes from 2 to 5 grams per day. I do not believe in gigantic doses of iodide except for the virtual emergencies of vascular syphilis and gummata involving important structures where daily doses of from 20 to 30 grams will sometimes work wonders.

In general it is better to underdose than overdose a late syphilis, provided that the treatment in whichever form be systematic and reasonably continuous.

Guy Manson \*—Doctor Mehrtens has pointed out that intensive intravenous and intramuscular medications will bring satisfactory results in 40 per cent of patients. This seems to me to be most encouraging. It also shows how important it is to give proved remedies a thorough trial before resorting to any of the newer remedies. Certainly such remedies a triparsamid, malarial infections, intraspinal treatments, should be used only as a last resort, and then preferably by a specialist.

The advisability of giving a few weeks of mercury and iodides before beginning intensive intravenous and intramuscular medication has been mentioned. I believe great stress should be laid on this point, especially if there is the slightest suspicion of cardiac involvement. I have seen one or two patients whom I believe lost their lives from receiving too intensive antisyphilitic treatment right from the

It is generally conceded that arsphenamine is more effective than the neoarsphenamine. For this reason I believe every patient with tertiary syphilis should be given the advantage of this slightly more effective treatment. Very convenient, ready prepared solutions of arsphenamine can now be obtained at the druggist's at a very slight increase in cost. The simplicity of administration is, to my mind, no excuse for denying our patients the best treatment at our command.

I am glad to hear Mehrtens say that the intramuscular injections of mercury are more effective. I have always felt that I got better results by this method. It has the added advantage that it keeps one in closer touch with the patient. Few patients will take the time and trouble to use the rubs correctly. I have never felt that I got any results at all with the oral administration of mercury.

Probably the most difficult problem we have to

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deal with in private practice is the so-called Wassermann-fast patient who, in spite of the most intensive treatment, still has a strongly positive Wassermann. It is recommended that we change our treatment often, using first one drug and then another. I have had patients on whom I have tried all of these methods, but my results have not been encouraging. It is most discouraging to both the patient and his physician.

Thomas J. Clark \*—To treat successfully the later ravages of syphilis is a problem that differs considerably from that of treatment in early phases of the disease. These patients are frequently in the fourth or fifth decade of life or even older, and have to contend with the decline of their general resources of vitality or possibly with some other disease, concurrently active with the syphilis. They may not be aware of being syphilitic, and the physician should use tact in explaining the diagnosis so that their co-operation may be secured for the treatment. The lesions of which they complain will in most instances soon disappear with vigorous medication, but it is important to have the hearty support of the patient for the future control of the disease.

The medical attendant must consider what he will use to bring this particular patient out of his immediate troubles as rapidly as possible, and to view the future for him so that the follow-up treatment may as nearly as possible cure the syphilis. A great many of them can be cured, but this may mean several years of medical supervision.

The lesions at this stage are destructive to whatever tissue they invade, so it is well to cause resolution to occur as rapidly as possible. Local measures may be used to advantage as well as the general constitutional. Hot compressing with boric acid solution to stimulate the blood supply followed with white precipitate ointment 10 per cent, is of value. Where much ulceration is occurring, swabbing with 50 per cent phenol and dusting with calomel powder is good.

It is well to view the constitutional treatment in a systematic plan based on time division, dividing up the first year into periods of active treatment and resting stages. For three months there can be given intravenously four or six doses of arsphenamine or neoarsphenamine at weekly intervals with two doses of salicylate of mercury intramuscularly in the interval of the arsenic medication. When the lesions have healed the arsenic can be discontinued and the intramuscular doses of the mercury continued biweekly or triweekly. After three months the patient is given a month's rest entirely from medication, or may take some potassium or sodium iodide or some iron preparation, and should be advised as to the proper hygienic and general care.

For the second period of active medication, which should be for two months, two or three doses of neoarsphenamine intravenously at weekly intervals should be given and then the intramuscular doses

of mercury continued triweekly. This finishes six months of the first year of medication.

The patient should by this time be in very fair general condition and show no active syphilitic signs. A rest of two months can be given with iodide by mouth for alternate weekly intervals.

At this time the treatment periods should be of six weeks' duration with two doses of neoarsphenamine intravenously and biweekly doses intramuscularly of mercury with two months resting stages with iodide at intervals for a week, or two weeks.

During the second and third years of the medical supervision, intramuscular doses of mercury should be used biweekly for a three weeks' interval, repeated every three or four months. The iodide should also be ordered for ten-day periods once a month. Bismuth salicylate or bismuth oleate may be used intramuscularly in these late cases as well as the early stages. It is an active remedy. It is used in doses repeated every second or third day for a period of five or six weeks. If bismuth is used it may be followed by mercury after a resting stage, to allow its elimination. In the use of any of these metallic substances the potency of the kidney function must not be interfered with, else the patient is liable to nephritis and exfoliative dermatitis.

M. W. Hollingsworth \*—Late syphilis differs from early syphilis in that the virus is well fixed in the tissues of the host, and so somewhat protected from the parasiticidal action of drugs; and in that the host has developed some degree of tolerance from long association with the spirochaete. Instead of focusing our attention on the rapid destruction of spirochaetes as in early syphilis, in late syphilis it is directed toward healing of lesions and improvement of general health, which is best accomplished by efforts to further augment the patient's acquired immunity.

Of "the reliable and dependable remedies" the arsphenamines kill the parasite (when accessible), but contribute nothing to the patient's resistance. Their injudicious use may even deprive him of such resistance, or develop a drug-fast strain of spirochaetes. Mercury has little or no parasiticidal action, but increases the resistance of the host against the spirochaete. Bismuth increases resistance and also kills the spirochaetes. Iodides dissolve granulomata, exposing the spirochaetes to the action of other drugs; any other action they may have is debatable. Iodides are best given just before an arsphenamine course or during a rest period if resistance is high.

My results in the treatment of late syphilis have been better when arsphenamine, mercury, and bismuth have been used in rotation but not together in the same course. Possibly this prevents the spirochaete acquiring a tolerance for several drugs at

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<sup>\*</sup> Merrill W. Hollingsworth (First National Bank Building, Santa Ana). M. D. University of California, 1917; B. S. University of California, 1914. Graduate study: Santa Clara County Internship: University of California, 1921. Present hospital connections: Santa Ana Valley Hospital. Scientific organizations: Santa Ana Clinical Society, Orange County Medical Society, C. M. A., A. M. A. Present appointments: Associate Professor Syphilology, College of Medical Evangelists; Captain, M. R. C. Practice limited to Internal Medicine since 1923. Publications: Two only, both laboratory studies: "Phlorizin Glycosuria as a Diagnosis of Pregnancy," and "The Use of the Circular Slide Rule in Computing the Metabolic Rate."

once, for just as its tolerance to one drug is incipient another drug is substituted. Serological relapses have occurred so frequently following rest periods in the first year that I now make the first year's treatment continuous whether early or late. Rest periods should follow a course of insoluble mercury or bismuth injections. All drugs are administered once weekly. Even with this interval mercurial and bismuth stomatitis are not infrequent. Dosages are determined exactly by body weight, this being facilitated by using a tuberculin syringe for insoluble mercury and bismuth injections and employing a 10 per cent suspension for intramuscular injection. Dosages for 150 pounds are: arsphenamine .6 gm. first injection .4 gm. subsequent injections of the course; neoarsphenamine .9 gm. for all injections, bismuth salicylate .136 gm., and mercury salicylate .120 gm. Treatment of late syphilis in particular should be based on an appraisal of the state of immunity of the host and the virulence of the infection; the greater the degree of immunity the less emphasis is placed in the arsphenamines. The following is offered as a typical schedule for an average case: Start with bismuth salicylate 8 injections, then one of the arsphenamines 6 injections, mercury salicylate 10 injections with iodide 20 grains t. i. d. on empty stomach during the last four weeks of the course, an arsphenamine 6 injections, mercury salicylate 10 injections, rest one month. In the second and third years, courses of twelve injections of bismuth and mercury salicylate are alternated, with rest periods interpolated.

Reactions from arsphenamine are minimized by giving it ice-cold. I find that by incorporating benzocain and procain in the mercury and bismuth salicylate mixtures their injection is rendered pain-

less

L. I. Oppenheimer \*—In order to use any remedies to the best advantage their mode of action should be understood in detail; therefore, in treatment of the later manifestations of syphilis, action of the arsphenamines, mercury, bismuth, and iodides should be constantly kept in mind.

Arsphenamine compounds act directly on the spirochetes; destroying by a deprivation of oxygen. Mercury and bismuth work indirectly, improve the body cells' resistance by an increase in their oxidative power and antibody production. Iodides have no action on the spirochete, even indirectly, but cause a resolution of the cellular infiltrate produced by spirochetal action, thereby allowing the antibodies and drugs to act upon the treponema.

It is well, also, to have a clear conception of the comparative value of the different compounds of

each of these groups.

The spirocheticidal power of arsphenamine as compared to neoarsphenamine is 3 to 2. In this proportion many experienced syphilologists consider arsphenamine more efficacious, but there is no ex-

perimental evidence to support this view. Sulpharsphenamine and triparsphenamine have less spirocheticidal but greater penetrative power. It appears that they are worthy adjuncts but not substitutes for the arsenobenzols.

Of the indirect spirocheticides bismuth has been proven to be 75 per cent more efficient than mercury. Gruhzit states that bismuth salicylate is more favorably absorbed than the metallic suspensions and has an equally great spirocheticidal power.

Of the mercury compounds the soluble preparations and inunctions are the more reliable. In 1919 I had 230 syphilitics under treatment with neoars-

phenamine and soluble mercury.

Seventy-eight per cent of 193 of these patients showed negative Wassermanns one year respectively from onset of treatment. All of the seven secondary cases presented negative Wassermanns. One of them had a reinfection. In 1920 the same neoarsphenamine therapy was followed, but mercury salicylate once a week was given instead of the benzoate three times weekly. One of the secondary syphilitics developed generalized, disseminated ulcerating syphilodermas two months after eight weeks of the above treatment; while another had an acute syphilitic leptomeningitis three months following a sixteenweek course. Experimental evidence also proves the inferiority of the insoluble mercury compounds. The work of S. Lumholdt in 1920 indicates that mercury salicylate is not reliable because it is decomposed with difficulty and is rapidly eliminated, while metallic mercury, because of its slow, irregular absorption and feeble therapeutic effects, is not the mercurial of choice. Although these are the most widely used mercury preparations I consider them the least efficacious. I do not use the intravenous mercury because of its rapid elimination.

Contrary to the present accepted conception I believe that the mercury should be given along with the arsenobenzol preparations; for, while the mercury does not synergize the action of the arsphenamine it provides a constant enemy to those spirochetes remaining after the arsenobenzol has delivered its powerful blow, thus tending to eliminate or incapacitate the remaining organisms, both hindering their multiplication and rendering them more susceptible to the next arsphenamine injection.

Experimental work at the Mayo Foundation has proved K. I. to be more efficacious than the Na I compound. I have seen a demonstration of the former preparation's value in the slow absorption of a papillomatous syphilitic growth of the vulva.

After the best agents for use have been determined the regimé of their application is an important consideration. In addition to the plans of procedures discussed, I suggest that sulpharsphenamine be added to the armamentarium as an integral part

of therapy for tertiary syphilis.

In regard to treatment as applied to tertiary involvement of the urogenital system, gratifying results are obtained in gummas of the testicle, gummas of the bladder and in early neurogenetic involvement of the bladder. In the early spastic stage of the latter condition the residual and symptoms can be relieved within two months, while with more advanced cases, where nerve tissue has been de-

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Graduate study: Cincinnati General Hospital, 1918; Alexian
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Clinic, Oakland Health Center. Scientific organizations:
Alameda County Medical Society; C. M. A., A. M. A.
Practice limited to Urology since 1919.

stroyed, specific treatment to check and urologic, medical and hygienic supervision, are the proper procedures.

In cardiovascular syphilis extreme care in administration of the arsphenamine compounds should be observed. I had a death following the administration of 0.6 gm. neoarsphenamine. Disseminated visceral syphilis is another type which requires careful treatment. Here, also, the less powerful drugs may be indicated.

With chronically damaged kidneys an ordinary dose of mercury may produce an acute nephritis.

H. P. Jacobson\*-The usual run of patients that present themselves for treatment of late syphilitic manifestations may be roughly divided into two distinct types or groups-the undertreated and the overtreated. In the first category may be included those who either through negligence or ignorance on their own part or through a mistaken diagnosis on the part of a physician have permitted the disease process unhindered progress with little, indifferent, or no treatment at all. In addition to these may also be included a fairly large number of victims whose primary and secondary stages of the disease are characterized by a lack of significant clinical manifestations and have therefore received little or no treatment until the later stages of the disease.

Taken as a unit this group of patients presenting late involvement, provided such involvement is not too extensive and all inclusive, responds fairly well to a systematic and persistent course of treatment.

As a starting point in such treatment I commence with a complete physical, neurological and serological (including complete spinal fluid) examination both for the purpose of a thorough evaluation of the extent of syphilitic involvement and as a guide for treatment. Having ascertained the full status of the patient I then proceed to select therapeutic agents and methods of administering them to suit the individual patient's needs. Of course, the arsphenamines and their derivatives constitute the mainstays. Next in potency and specificity are the salts of bismuth. These two drugs constitute a specific armamentarium in the fight against syphilis. I employ these drugs alternately and usually interspersed with some form of nonspecific protein therapy, such as milk injections. Spinal drainage, through its effect on the permeability of the choroidal plexus is, in my opinion, of some value in patients with cerebrospinal syphilis. Mercury I do not employ at all. Iodides are unquestionably valuable both to help in the resorption of the products of specific inflammation and to stimulate the chief detoxicating

organ in the economy, the thyroid gland. Intraspinal medication and malarial inoculation should be resorted to only in selected patients and after a sufficient trial of the less severe methods of treatment have failed to achieve desired results.

The second group of patients comprises those who, in spite of early, persistent and intensive treatment, still develop manifestations of the later stages of the disease. Some of these sufferers give a history of having gone through the gamut of all types and manner of treatment without any appreciable change clinically or serologically. They constitute a serious problem because there is an apparent total lack of natural or acquired immunity to the spirochaeta pallida and its toxins, and the burden therefore rests entirely in our ability to combat the disease by artificial and external means. In addition to this lack of immunity on the part of the victim we are at a further disadvantage by the fact that the virus has so perfectly adapted itself to its environment that it has become a biochemical part of the tissues in which it resides and thereby escapes the lethal effects of the specifics which we usually employ. The treatment therefore resolves itself into an attempt at the establishment or re-establishment of tissue immunity plus a dislocation or dissociation of the spirochaetes from their places of rest and refuge. This, of course, is best accomplished by malarial inoculations, which consist of the administration of 5 to 10 cc. of tertian malarial blood intravenously, subcutaneously or intramuscularly. This is then followed, after sufficient and adequate number of chills, etc., by a fairly intensive course of specific medication in the usual fashion. Needless to say, that in all events and at all times, serological examination, of both blood and spinal fluid, must be performed regularly to guide us in our treatment.

Friends of Smallpox—Antivaccinationists or, as they should be more appropriately termed, the friends of smallpox, are as active in England as they are in California. Leonard Rogers, known everywhere for his splendid work in tropical medicine in India, now retired and living in Hampstead, has this to say in the London "Morning Post": "Smallpox in a badly vaccinated population, such as that of Great Britain today, is mainly a disease of childhood, and I do not envy the feelings of those politicians and others who are responsible for the present position when the tragedy of the corner of the Gloucester cemetery filled with the innocent child victims of the antivaccinationist craze is repeated in others of our cities. In my opinion anyone who aids and abets subjecting helpless children to this terrible and wholly unnecessary risk must be held responsible for the sufferings and loss of life which are inevitable sooner or later, under present conditions, in this, the country of the immortal Jenner."

The birth rate among British teachers averages only 95 children for each 1000, according to public health statistics for 1925 just published. The medical profession is only a little better off, producing 103 babies for every 1000 physicians, while the rate for ministers of 105 per 1000 contrasts unfavorably with that of 231 births for every 1000 laborers. The birth rate per marriage among upper working classes has dropped from four to two and a half children within a generation, while that of casual laborers and feeble-minded is seven.—Bulletin of the Wayne Co. Med. Soc.

<sup>&</sup>quot;Many of us are dying," says Sir Thomas Horder, "of too much care to live." This is a wise word and, being that of a celebrated physician, it should command the attention even of hypochondriacs.

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#### EDITORIALS

### SHALL WE GOVERNMENTALIZE MEDICINE AS WE HAVE EDUCATION?

Many roads lead to state medicine. Some are well sign-posted highways; others are devious and as free from signs as the game stalker's trail.

Government health insurance is one of the highways which usually begins as limited service for limited groups and expands until it becomes universal. This form of socialism, which not only breaks through the sacred boundaries of the family circle and stalks to the bedside of the sick or "presick" but invades the personal liberty guaranteed to free citizens, is already old enough in several countries to make its effects observable.

The extensive world-wide revival of socialism during the last few years includes that form of it long known as state medicine, and it therefore behooves those intelligently interested in the health and welfare of people to lay a barrage along this highway and strengthen the guards along the more devious trails leading to the same goal.

The open offensive for state medicine has not been renewed in the United States since its overwhelming defeat by the voters of California some years ago, in which even physicians—honest, able ones—were active on both sides of the question.

One of our able physicians who favored California compulsory health insurance initiative defeated by the voters, after more than a year's observation abroad writes us in a recent letter:

"I intended when I came to England making a real study of social and health insurance, but I have not more than scratched the surface. Of course, I don't think they have health insurance at all. What it amounts to is merely a means of making medical relief available to a lot of people who would neglect themselves or else overcrowd the outpatient clinics. Curiously the doctors are more satisfied than those who are 'insured,' for those who have good-sized panels-2000 is the maximum-get a steady certain income and carry on their other practice as well. They are planning now at the Ministry of Health to incorporate preventive medicine with regular recurring examination of the premium payers at biennial times, hoping to catch the early causes of rheumatism, arthritis, heart disease, and tuberculosis which contribute here overwhelmingly to morbidity. peculiarity that the English workers had, years before the coming of health insurance contributions, wellorganized contributory relief societies known as 'friendly societies,' made the administration of the insurance act easy. Most of the actual administration of such benefits and determination of the individual's needs are under the control of such societies. Nevertheless, the system is rapidly moving on toward state medicine. In fact in every way England is more of a socialistic state than the most enthusiastic socialist of a few years back could have expected to find anywhere at any time, and as a result the country is in a state of dry rot." "Dry rot" of a progressive service; dissatisfaction among those served; intellectual stasis and a pittance in compensation for those who serve; inculcation of the spirit of dependence where thrift should be a watchword, and making a political plaything of the most personal and precious of human assets—health—is the inevitable consequence of any form of state medicine, by any name.

While the frank state medicine movement is for the moment quiescent in our country, the promoters of devious trails to the same end are exceedingly active and numerous; many of them financed, their propaganda often published at public expense and more often as "news."

Different nonmedical groups are working for the control of medicine through control of hospitals, laboratories, clinics, organizations of technical assistants to physicians and other agencies essential to the complex well-rendered service to health.

Some of our universities are teaching, practicing and otherwise fostering a spirit among students that health and illness are state functions which ought to be as "free" and as official as education and served by the same or similar machinery. Some medical schools foster this spirit with both free and near-free clinics for rich and poor. Some organizations of educated groups of physicians themselves contribute to the movement; and individual doctors, on the theory that certain contact will increase their clients, or that they may aid worthy causes by serving the sick in public places managed by others instead of in their own offices, thereby help materially the arrival of the day when the doctor will be but another hired man.

Being the hired man is a perfectly honorable occupation, and many and rapidly increasing numbers of physicians are so engaged. This in itself is not the danger to the cause of medical and health progress, but it is one of the trails that astute promoters hope to see converted into a highway that will make of medicine as complete a government function as education now is. This at first, of course, to be a voluntary matter so far as the citizen is concerned, but later to be as compulsory as attendance of children now is at government schools.

In any event we are moving along that road, and so certain are some that the goal is in sight that they are attempting legislation calculated to make health and medicine subsidiary to education, instead of an independent government unit when the new highway of universal compulsory government medicine reaches Washington.

We have a feeling that somewhere along this route an impossible obstacle will be encountered and that medical and health service will continue to be for a long time a personal matter between those who serve and those who need service, with the proviso that the state will increase the volume and quality of health service for the insolvent as the paramount duty it is.

# EFFECTS OF OVARIAN AND PLACENTAL LIPOIDS ON UTERINE MUSCLE AND AUTONOMIC NERVES

It has long been suspected that the therapeutic virtues of sex organ products are not limited to effects on the strictly glandular portions of the sex organs, or to the mediation of changes through them. The administration of the dried, powdered products and extracts from them is reported clinically to increase the sense of well-being, the mental stability, the appetite, muscular power, and to improve the circulation, and the autonomic nerve balance. All the symptoms of menopause may be inhibited and a sort of rejuvenation occur at least temporarily. The benefits derived may be only the consequence or accompaniment of improved sexual vigor which appears also to be increased, and again a general improvement may occur independently of any demonstrable changes in sex function.

The responses are capricious and sufficiently irregular and inconstant to have caused as much condemnation as approval of the products. The irregular and inconstant effects may be due to weak, improperly prepared or fraudulent products, and there is as yet no reliable standard by which to judge the general effects. Satisfactory analysis in man is difficult, if not impossible, and unfortunately the clinical reports that exist are almost devoid of controls with other tissue products and the results rendered useless. Here, as so often in other problems, there is no satisfactory substitute for animal experiment.

Recently, Miura of the Pharmacological Institute in Freiburg has made a successful investigation, and demonstrated the efficacy of ovarian and placental extracts in rabbits along promising lines. The products used consisted of the lipoidal constituents in these organs, cholestrol probably being strongly represented. Miura injected daily doses of from 0.2 to 0.3 gm. (total 1.1 to 2.2 gm.) of the crude oily products hypodermically during periods of from seven to fourteen days in young virgin rabbits of about 500 gms. body weight. At the end of this time the uterus was markedly hypertrophied, appearing several times larger than the normal control organ. This was confirmative of the older results of Herrmann. Miura states nothing regarding the size of other organs. More important than the hypertrophy, however, was the altered functional activity of muscle and autonomic nerves in the uterus.

This altered functional state of the nerves and muscle was demonstrated pharmacologically by Miura. That is, he showed that the responses of the uterine horns to the classical autonomic drugs after injection of the ovarian or placental lipoids were increased. He first removed one uterine horn by laparotomy and used strips of it for the determination of the control responses to the drugs. After recovery of the rabbits, and treatment with the lipoid products, he removed the remaining horn, now hypertrophied, and determined its response to the same drugs in the same concentrations under identical conditions. The results were unequivocal and uniformly showed very marked increases in the

responses to pituitary extract, epinephrine, nicotine, pilocarpine, atropine, and barium. Increases up to seven times the control responses in tonus and amplitude of the contractions were obtained. In other words, Miura demonstrated with these tests a marked hyperexcitability of the smooth muscle and autonomic nerves (both the sympathetic and the parasympathetic) in the uterus. Other organs and functions were not studied, and this would be very desirable before generalizations on the possible effects on autonomic imbalance in general are permissible. Other species were not adequately tried by Miura. The cats that were used gave results which could not be used. Although the results obtained are not transferable directly to man, yet they point the way to promising studies of the vexed problem of sex gland products. As far as they go, they sustain remarkably well the suspicion that sex gland products exert some of their effects by changes in other functions besides the sex function itself. The results suggest indeed a basis for the therapeutic benefits of such products, namely, a corrective influence on autonomic nerve function.

It would be premature to assign the rôle of specificity to the ovarian and placental lipoids used in Miura's work. Controls with muscle and other organ extracts are desirable. In fact, the effects of the various lipoids themselves should be determined, especially of cholestrol, that ubiquitous substance already under suspicion in many physiological functions and pathological alterations.

Miura: Arch. exp. Path. Pharm., 1926, 114:348. "Der Einfluss der Plazenta—und Ovariumlipoide auf die Giftempfindlichkeit des Uterus."

Herrmann: Monatsschr. f. Geburts. u. Gynäkol., 1925, 41:1. "Ueber eine Wirksame Substanz im Eierstocke und in der Placenta."

# SUPREME COURT UPHOLDS AMERICAN DRUGS

A decision of the highest importance to every physician, pharmacist, drug manufacturer and, in fact, every user of drugs in the United States was rendered by the Supreme Court of the United States on October 11, 1926, when this highest tribunal of the nation declared that the Chemical Foundation has been acting legally and properly in the purchase of the foreign drug and chemical patents during the war, and licensing American manufacturers to produce these essential substances in this country.

The sale of the German patents to the Chemical Foundation took place during President Wilson's administration and had, without doubt, a distinct influence upon the outcome of the war, because this transfer permitted American concerns to begin at once the production of various drugs and chemicals which had theretofore been made only in Germany, and whose importation ceased with our entry into the war.

President Harding, apparently laboring under some misapprehension as to the purposes and functions of the Chemical Foundation, directed that suit be brought by the Government to set aside the sale of these patents to the foundation.

The case was first tried in the Federal District

Court of Wilmington, Delaware, and resulted, after weeks of evidence taking, in a finding against the Government on all points.

The case was appealed to the Circuit Court, which upheld the decision of the District Court in

every particular.

A final appeal carried the question to the Supreme Court of the United States, where evidence was heard more than a year ago. The long delay in rendering a decision has afforded time for mature consideration. The court has decided unanimously that the sale to the Chemical Foundation was valid and legal and that the foundation has made no improper use of the powers which it thus acquired.

This decision is a momentous one for everyone who has anything to do with drugs and chemicals

in any way whatever.

To the physician it means that he will have a steady and regular supply of reliable drugs of American manufacturers which can never again be upset or cut off by the vicissitudes of war. The same considerations apply to the pharmacists. Among the vitally, necessary drugs affected may be mentioned the arsphenamines, cinchophen, barbital, the flavines, procaine, and a host of others.

To the drug manufacturer who has invested thousands of dollars in apparatus for the manufacture of drugs and chemicals under the foundation's licenses, it means relief from a certain degree of anxiety (though the outcome of the case could scarcely have been in doubt) and a tremendous inspiration to further investigations looking to the production of more and better drugs and chemicals for

America.

To the nation at large it means that reliable medicines will continue to be sold at reasonable prices; and, more or less indirectly, that the dye industry of America which is now in a flourishing condition (thanks to the Chemical Foundation) will be available for government uses should we become involved in another war.

Nor are medicine and pharmacy the only lines of endeavor affected by this momentous decision. The steel and packing industry and many others will be vastly benefited by the freedom of chemical investigation and activity which is now assured them.

## "AN INDICTMENT OF THE MEDICAL PROFESSION"

Under the above caption, an editorial in the November issue of Sunset Magazine accepts the propaganda of the Children's Bureau apparently as facts and from that insecure basis attacks the medical profession more vigorously and with less of the finesse

employed by their "authorities."

The editorial opens with: "If the allegations of the Children's Bureau, U. S. Department of Labor, are true, the American medical profession needs a housecleaning. According to Dr. Robert M. Woodbury (not listed in A. M. A. Directory of Physicians) of the Bureau, the mortality rate of American women as a result of childbirth is among the highest in the civilized world."

After quoting some of the "statistics" by this lay federal bureau—statistics that in effect have been challenged by such eminent authority as the late John Howland of Johns Hopkins in testimony be-

fore a committee of congress and which avoid the cautions of the Census Bureau in the interpretation of "statistics"—the editorial concludes: "If 1000 American mothers must die every year through the carelessness of those attending them, it is time that the leaders of the American medical profession took steps to end the slaughter of the nation's most valuable members."

Even if the worst that the Children's Bureau claims is true, what justification have they for implying the responsibility of physicians and what justification has the Sunset Magazine for employing these alleged facts as an editorial "indictment of the medical profession" as being responsible for the

tragedy?

Whatever the purpose of the "indictment," one consequence is injury to a great humanitarian profession by jeopardizing public confidence in its members. One may see political advantage in such efforts by the Children's Bureau, which is now fighting for its continuation by Congress—an effort being opposed by physicians and others who are opposed to paternalism in government. But it is more difficult to understand why a dignified California magazine would go the lay Children's Bureau one better by making their implication the basis of an editorial "indictment of the medical profession."

There are some thousands of persons authorized by law to assist mothers at childbirth without sufficient medical education to secure a license as physicians, in California alone. Do the Children's Bureau and Sunset Magazine charge the medical profession with responsibility for these stupid laws?

It is claimed that "40 per cent of the deaths during confinement were the result of puerperal septicemia due to infection resulting from lack of surgical cleanliness." This is one of those half-truths that by a little manipulation are converted into a drastic criticism of physicians, particularly when it is boldly asserted that "almost 100 per cent of such septicemias are preventable," thus implying that it is the fault of physicians that they are not prevented.

If the channel through which the baby must travel to be born were always sterile; the outlet into the world were less closely associated with a constantly infected field; the urinary canal were always surgically clean; the glands that empty around the vaginal area were always healthy; were it always possible to deliver the baby without injury to the soft parts; and were all babies delivered by licensed doctors of medicine, puerperal infection would be theoretically 100 per cent preventable and practically more nearly so than it is. But obstetricians know that these favorable conditions obtain in far from 100 per cent of mothers. They know they are always working dangerously near a highly and unavoidably infected field and, more often than it is wise to explain publicly, in a field already infected by methods that need not be mentioned here, but for which the physician is not responsible and which he cannot always counteract.

However, eliminating all the uncontrollable factors, we admit that infection which ought to have been prevented does occur with greater frequency than it should in maternity, as in all other forms of surgical contact. The reduction of such infections has been a major effort of physicians since their cause was made clear by the work of the immortal Oliver Wendell Holmes.

Too many infants die also, but not as many of these deaths are blamable on physicians as our tax-supported information bureau implies and some editors, relying on their "statistics," assert. Thousands of infants never had a chance to live from the time of the fusion of the elements that produced them. They die by the thousands while still in their mother's womb, some from faulty manufacture and some from faulty environment. Others come into the world so badly crippled that they die during early infancy, again from uncontrollable causes, as well as preventable ones.

It is the duty of physicians and all citizens to reduce as rapidly as possible by intelligent action the hazards incident to reproduction. This is best done by competent personal service, but the utilization of the alleged shortcomings of physicians as a reason for ever increasing control of this important and difficult branch of the practice of medicine by inadequately educated political appointees of a paternalistic government, with inadequately trained agents and advice by mail reaching even the most remote hamlets, obviously is not the road to travel. It is not even a good or safe "temporary route."

Cautery Treatment of Chronic Endocervicitis-That chronic endocervicitis is always due to the presence of bacteria even though trauma, whether chemical or me-chanical, may have acted as a predisposing cause, is the view of Carl Henry Davis, Milwaukee (Journal A. M. A.). The treatment used in his office is briefly as follows: After a suitable bivalve speculus has been inserted the mucus discharge is thoroughly removed with cotton balls and applicators. A suitable light weight cautery tip, preferably from one-half to three-fourths inches (13 to 19 cm.) long, is placed firmly against the tissue to be destroyed and the current turned on by pressing the button on the cautery handle. As a sufficient depth is reached the tip is gradually moved so as to make a line through the diseased tissue. In many cases it is necessary to cauterize only the glands near the external os and the eroded area; in others, the disease extends to the internal os. If at any time the patient complains of discomfort the contact button is released and the current not applied again until she is comfortable. This process is continued until a sufficient number of cautery lines have been made. Nabothian cysts are destroyed in a similar manner after they have been punctured with the heated tip. An effort is made to reach the depth of the glands so as to destroy a part of the diseased tissue and all the bacteria. The lines are at least three-sixteenths inch apart, so that only a part of the cervical glands are destroyed. This permits regeneration of fairly normal glands. If the patient is very nervous or conscious of considerable pain, nitrous oxide-oxygen analgesia or anesthesia is administered in the office. Only a few patients are now being sent into the hospital for cautery treatment. In many ways the analgesia is more satisfactory than complete anesthesia for the office patient. She can administer it herself according to the technic formerly described for self-administration during normal labor. Since making his first report in December, 1924, Davis has treated an additional 180 patients, making a total of 317. Following a cautery treatment there is a marked increase in the discharge for about two weeks, and the patient is warned to wear a napkin. She is told that the next period may be more profuse than normal. A few patients have had excessive bleeding and have required a pack for a few hours. The patient is instructed to keep clean by frequent washing of the external genitalia. Douches are of questionable value, and as a rule women are warned against their use. The author found it advisable to clean out the vagina and cervix every week or ten days and to paint the cauterized area with mercurochrome-220

soluble or compound tincture of benzoin until healing is complete. A second cautery treatment is rarely indicated under four weeks, and very few require any more. The cautery should never be used during the acute stage of a cervical infection. Patients with retroflexion should not be cauterized until the uterus has been replaced and a proper pessary inserted. Subacute salpingitis contraindicates the cautery. Sex trauma should be avoided for at least two weeks after the treatment, and in extensive cases longer. The cervix should never be cauterized during an operation in which the uterosacral ligaments are to be shortened. Syphilis of the cervix contraindicates the cautery. Puerperal patients that show any sign of cervical disease on the examination five or six weeks after delivery return in two or three weeks for another inspection and cautery treatment if it seems indicated. This prophylactic measure may prevent more serious disease of the cervix in the future and is recommended.

Refractive Changes-E. C. Ellett, Memphis, Tennessee (Journal A. M. A.), states that the conditions that may bring about a change in the refraction of an eye arrange themselves quite definitely in one of several groups. (a) Alterations in the diameter of the eyeball, especially the anteroposterior diameter, the so-called axial changes, which have the effect of altering the focus of the dioptric system in its relation to the position of the retina, and changing the amount of hyperopia or myopia. (b) Changes in the curvature of the surface of the refractive media, especially the anterior surface of the cornea, and probably the anterior surface of the crystalline lens, ducing changes in the astigmatism. (c) Changes in the density (index of refraction) of the refractive media, especially the aqueous humor and crystalline lens. changes occur under a great variety of circumstances as the result of disease, local or general, and possibly from the absorption of certain drugs or other substances by the media. (d) Changes in the refraction which may occur the result of muscular action, the commonest example of which is the increased refraction under the influence of accommodation. This change may be voluntary or involuntary, and the latter is often of reflex origin. (e)
Cases which are not included in the foregoing groups or which represent a combined type. The method of estimating the refraction in the cases reported has usually been by the use of an efficient cycloplegic, atropine, scopola-mine, or homatropine, unless the age of the patient made it appear that the accommodation was no longer to be taken into account. In some instances, for various reasons, a cycloplegic was not employed, but in such cases the circumstances did not appear to demand it.

A cultist, or a sectarian in healing, is one who, without regard to the established facts of science, departs on some single dogma, some single belief as to the causation and healing of disease, and promotes that belief with all of the enthusiasm of a divinely inspired fanatic, probably for monetary gain. Contrast with that the scientific physician who has had an education second to none: high school education, university education, four years of medical education and hospital internship, possibly adding two or three years of postgraduate study and fellowship study in an attempt to acquire a knowledge of modern medicine. For modern medicine today is a science based on all of the fundamental sciences, embracing everything that can be taken from chemistry, from physics, from biology, from zoology, from psychology, from sociology, from every one of these deep and abstract studies that have been torn by man from the mysterious and brought into the open. Everything from all of these sciences that can be applied in any way to the diagnosis or healing of human disease must be a part of the armamentarium of the modern physician.—Morris Fishbein, Minnesota Med.

Rapid, Reliable Clinical Method for Estimating Acidosis—Lorena M. Breed, Pasadena, California (Journal A. M. A.), has devised a modification of Sellards' method for estimating the carbonate content of the blood. The method has proved simple, yet reliable and accurate. The technique is given, as well as a table of values for comparing carbonate content with percentage by volume of carbon dioxide.

## - The MONTH with the EDITOR -

Notes, reflections, comment upon medical and health news in both the scientific and public press, briefs of sorts from here, there and everywhere.

The Bulletin of the Association of American Medical Colleges promises to serve a very useful purpose in the improvement of medical education and practice.

Volume 1, No. 2 (October), contains an article by Emile Holman describing the extensive changes in the arrangement of the curriculum recently inaugurated at Stanford. Ernest C. Dickson discusses the organization and plans for development of the new Department of Public Health, including tropical medicine, recently inaugurated in the same school.

These brief discussions, together with recently published papers by A. C. Reed, head of the tropical medicine work in Stanford; the contributions by William J. Kerr, head of the medical department, University of California; and the promising experiment in partial self-support of medical students being fostered by Percy T. Magan, dean, College of Medical Evangelists, Los Angeles, are indicative of important trends in medical education, with our good medical schools where they belong, in the vanguard of progress.

Many physicians with experience in tropical medicine will continue to wonder at the reasoning which makes this great branch of clinical medicine a subsidiary of a public health department.

Obviously there is precisely the danger in this action that there would be in making all branches of clinical medicine subordinate to a public health department.

An indication of the value and importance of recent studies in tropical physiology that make up Volume 6 1926), University of California Publications in Physiology (University of California Press) is visualized from this quotation from the introduction by E S. Sundstroem, from the Australian Institute of Tropical Medicine and the Division of Biochemistry, University of California.

"Irrespective of the possibly ephemeral interpretation to be given to the accumulated data, the writer ventures to say that some of these data by themselves, collected as they were with all possible care, bear evidence that the climatic factor must be reckoned with in the determination of the welfare of the white race in the tropics. The writer disagrees in this respect with opinions held in some quarters that the hot climate itself is a negligible factor and that diseases of exogenous origin or faulty diet are the only obstacles to tropical settlement by the white man. On the other hand, one is led to believe that the pessimistic views expressed by others with regard to these problems are grossly exaggerated. It is possible that the peculiar environmental conditions in the tropics far from being, in the physiological reactions they produce, a check to white migration, may in themselves even carry factors conducive to racial betterment. It will be recognized, however, that before these factors will become effective a number of apparently less desirable, concomitant environmental reactions, notably those seen during the initial stages of acclimatization, will need to be attended to. Exactly of what nature these reactions are and how amenable they are to neutralization offers, I believe, one of the opportunities of physiological science, notably the biochemical branch thereof, to contribute to human welfare.

We are beginning to find out that the question of adaptation of the white races to tropical environment is far

more complex than is generally understood.

Many physicians of extensive tropical experience have cautioned against drawing conclusions too broadly from the brilliant results obtained by intelligent control of infections.

Studies like the one under review but confirm the opinion of experienced practicing physicians that, if we could eliminate overnight all infectious agents from the tropics,

the problem of the possible adaptation of the white races to tropical conditions would still be an unsolved one.

The alleged drastic attack on American surgeons by a Dr. M. Porzio, "eminent surgeon" of Rome, for following methods that "killed a well-known film star," and for the claim that "the percentage of deaths from appendicitis in the United States is the highest in the world," will undoubtedly receive the evaluation it deserves by physicians. The trouble is that this "eminent surgeon" broadcast his opinion through the public press of the world.

Criticizing doctors and their methods is becoming a favorite indoor sport for a lot of people, including some of our government publications paid for out of taxes:

Physicians will watch with a great deal of interest the public reception of that amazing book, "The Doctor Looks at Love and Life" by Doctor Joseph Collins (Doran).

From the point of view of the educated physician the book is an excellent portrayal of generally accepted factsby one well versed in his subject and one who is among the most appealing of modern writers.

If this book were issued by a medical book publishing house and released through usual channels to doctors, it would be accepted as a worthy discussion of important subjects; but what the general public may think of it is problematical. That the gifted author anticipates criticism, controversy and even vilification by some is made perfectly clear in his introductory chapter. But as he says, the public has been clamoring for facts about "love and life" and Collins has supplied as many of them as even the boldest writer dare write and the publisher publish.

Whatever the final verdict, everyone must admit that the sorrowful story is told with a skill and cultural taste rarely equaled.

.....

Every physician will find food for serious thought in "Life Insurance Medicine" issued by the New England Mutual Life Insurance Company.

In his letter transmitting complimentary copies of the book to certain publications and physicians, Dr. Edwin W. Dwight, medical director of his company, says:

"The line separating clinical and life insurance medicine has always been and remains a visionary one. Clinicians treat individuals and insurance companies deal with homogeneous groups of a thousand individuals so that the point of view must always be different, but valuable contributions to medical knowledge may be expected from both sides of the line, their reciprocal value depending on their translatability.

"With the desire to make a contribution to clinical medicine the medical department of the New England Mutual Life Insurance Company has just published a volume consisting of a collection of papers on certain phases of insurance medicine written by members of the Home Office staff.

"This company is demonstrating its belief in the value of medical examination for insurance as opposed to the so-called nonmedical selection and feels confident that as we can enlist the interest of clinicians of high standing in our problems mutual advantage will result."

In the opening chapter of the book, Doctor Dwight has this and much more to say of statistics:

"The value of statistics depends upon three factors: their source, their accuracy, and the honesty and intelligence of their interpretation. If we do not know their source, or the accuracy and honesty of their development is not above question, statistics are of no value and

they are always dangerous in the hands of the special

"Statistics from many sources demonstrate that on the whole the work of the medical profession during this past twenty-five years has been effective, that in the saving of life the increasing of efficiency and the diminishing of suffering much has been accomplished. However, from the statements which have been made it would appear that more has been done than is really the fact. We frequently hear that this man or that man has said in somewhat indefinite terms that 'more has been accomplished in twenty years than in the past twenty centuries'; or that 'the expectation of life in the average individual in our country has been increased by fifteen years.' Such casual statements are untrue, and give us a false sense of security and a false idea of the value of the work which is being done."

The eight chapters of the book are largely devoted to a plea for greater intelligence and less emotionalism and propaganda in establishing our medical facts, and par-

ticularly in their interpretation.

Beginning with the January, 1927, issue "The Radiological Review" will be published monthly instead of bimonthly, and it will increase its number of pages from 32 to 64. This magazine is devoted to the progress of x-ray and radium from the standpoint of the general practitioner and the specialist in branches other than radiology.

We haven't any fear concerning the lowering of the maternal mortality in childbirth if those permitted to practice medicine have complied with rigid requirements as to education and training, but we do have fear for the consequences when our state legislature is willing to place its stamp of approval upon all the various pseudomedical cults that ask for recognition, and this is exactly what has occurred in a number of states, and it is these incompetents who oftentimes help to increase the maternal mortality rate. We are not going to make any advances in the protection of the public from preventable mor-bidity and mortality until we recognize the fact that those who care for the sick and suffering, including the pregnant mother, must have suitable education and training. We must stop giving the illy prepared the legal right to practice.—J. Indiana M. A.

How Bill Nye's "Society of the Pale Blue Asses" has grown, multiplied and given birth to baby societies of many colored asses.

We are being warned that the typhoid incidence curve is rising again and, what is of even greater prophetic significance, the mortality rate also is rising.

significance, the mortality rate also is rising.

The latest statistics (1925) give Soviet Russia 105,062 cases; Mexico, 6739; Japan, 50,829; Canada, 1985, and the United States, 48,318.

What are we going to do about it? Probably not enough until this easily preventable disease begins to destroy a frightful number of lives, and then we will have a "drive" and wipe out the sources of infection for

The American Medical Association is rendering many splendid services to physicians and the public. Among these are the activities of the Council on Phar-macy and Chemistry and the Chemical Laboratory. We read with interest the frequent reports from this laboratory as they are published, but even physicians cannot appreciate the extent of this great public health service without reading the annual reports. This laboratory was organized twenty years ago, and it is largely from its findings that hundreds of promotions of quack remedies have retired from business. The report of this laboratory for the years 1924 and 1925 is now available, and every physician ought to have a desk copy of it.

Physicians will find the answer to many questions asked them about this or that new cure-all in this book, and those physicians who may be inclined to listen too sympathetically to the alleged virtues of many new preparations will find here facts calculated to save prescription blanks.

Doctors Be Warned-The following letter has been received by Doctor Pinkham, secretary of the California Board of Medical Examiners from the Treasury Department, Internal Revenue Service, San Francisco, under date of November 17, 1926:

"In reply to your letter of recent date relative to inserting the name and location of the druggist on prescriptions, Form 1403, you are advised that Treasury Decision 3934, approved October 15, 1926, reads as follows:

"'Section 1412 of Regulations 60, approved March 14, 1924, is hereby so modified as to provide that physicians, when writing prescriptions, Form 1403, shall not name therein the druggist or pharmacist who shall fill such prescription, and the space provided therefor in the said Form 1403 shall be left blank.

"'All regulations inconsistent herewith are rescinded to

the extent of such inconsistency.

"You are respectfully informed that notice of the change has been given publicly through the press and generally to inquiring druggists and physicians, and has also been noted in the medical and druggists' magazines and others.

"This office contemplates sending individual notices at an early date to all parties concerned in the Twenty-first District."

The first, last, and whole duty of a public health official lies in the field of preventive medicine and hygiene. He cannot escape or abrogate that duty to others without breaking his oath of office.—Matthias Nicoll, Jr., New York State J. Med.

Murdering people by the application of poisonous skin beautifiers at the hands of "beauty specialists" growing to be quite a pastime in California.

Many people want to know why this is permitted. For the very good reason that there is no law regulating the matter. The Board of Medical Examiners have charged matter. The Board of Medical Examiners have charged some of these people, who make money by playing with life with about as much intelligence as a child plays with fire, with malpractice. Courts invariably rule that face peeling is not the practice of medicine within the meaning of the law and so these "specialists" only have to secure a municipal license, and may go on killing people without bindespee without hindrance.

What are we going to do about it? Nothing, until some very prominent woman's life is taken and public opinion

arouses the legislature to do its duty.

The St. Pancras Division of the British Medical Association recently passed a resolution "That, the education of the public in health and in the prevention of disease being of national importance, the dissemination of news on health topics should be encouraged. Actual medical instruction might well be controlled by a representative body, and editors should not ask men in private medical practice to write articles under their own name.

In proposing the resolution, Sir Thomas Horder said: lay press is certainly the most powerful medium we possess for instructing the public on health matters. We must do our utmost to secure the co-operation of the proprietors and editors of those journals that influence the thinking public: their help is paramount. We need not of securing their assistance because, reading the placards on the back of the buses, we find it difficult to believe that some newspapers will care much about print-ing health information of the orthodox kind."

Osteoperiosteal Bone Graft-Experimental and clinical data are presented by George M. Dorrance and George W. Wagoner, Philadelphia (Journal A. M. A.), concerning the application of the osteoperiosteal bone graft for the repair of bone defect and extra-articular ankylosis. They believe that they have demonstrated the ease with which autogenous osteoperiosteal grafts may be obtained, and the satisfactory manner in which they may be used to repair bone defects or produce ankylosis. They emphasize the advisability of laying the graft extra-articularly when ankylosis is attempted. By the use of the pliable osteoperiosteal graft, it is possible to produce ankylosis without opening the joint space—that is, extraarticularly.

# MEDICAL ECONOMICS AND PUBLIC HEALTH

In outlining the new policy adopted by the Federal Trade Commission, which is to include active government efforts to limit fraudulent advertising, Commissioner William E. Humphrey states that there are a number of publications that "will publish any advertisement for money, regardless of truth, honesty, or decency."

"The people of this country," continues Mr. Humphrey,

"The people of this country," continues Mr. Humphrey, "are annually robbed of hundreds of millions of dollars through these fake advertisements, most of which are plainly false and known to be so by those who take money for their publications. Some of the glaring instances of this class of fake advertisements are the various 'antifat' remedies, medicine, soaps, belts, and other articles—all of them fakes and all of them dishonest, and many of them harmful. Patent medicines for incurable diseases, that are frequently injurious, and often, by holding out false hopes, keep the victim from real help until too late. Beauty creams and lotions and cosmetics that improve the pocketbook of the faker if not the complexion of the user. Fake industrial schools holding out alluring promises of lucrative employment. All these prey upon the weak and unfortunate, the ignorant and credulous. There is no viler class of criminal known among men than this. And what of the publisher that for hire publishes these fake advertisements, knowing them to be false? He is equally guilty with the principal. He shares in his ill-gotten gains. He acts from the same motive. If, in any degree he differs from the principal, it must be one degree lower for his chances of punishment are less, and his responsibilities greater."

According to a statement released to the press by the Department of Public Health, San Francisco consumed 18,660,625 gallons of milk from July 1, 1925, to July 1, 1926, or 51,125 gallons daily. The milk is supplied by 173 dairies from eight counties, and is distributed in San Francisco by eighteen pasteurizing plants. Ninety-seven per cent of this milk is pasteurized before delivery, while the remaining 3 per cent is either certified or guaranteed by and produced under the direction of the San Francisco Medical Society.

Every precaution is taken to insure the people of San

Every precaution is taken to insure the people of San Francisco against impure, unclean or unhealthful milk, by constantly inspecting the cows, dairies, shipping facilities, pasteurizing plants and deliveries of milk.

We recently have been supplied with evidence to the effect that certain medical men have been sending samples of blood to the state laboratory for free examination, and charging the patient for the examination. There is no occasion for sending blood from a pay patient to the state laboratories which are intended to furnish services to the indigent only. . . Frankly, we don't believe that the state has any business in running a laboratory in the way that the state laboratory is run at the present time. We hold no brief for the private laboratories, but we do say that the state has no justificable right to enter into competition with private practitioners of medicine nor does it have any moral right to encourage dependency and pauperism which must be paid for by taxation upon the public generally.—J. Indiana M. A.

Such practices probably are not limited to Indiana. The problem ought to be met and settled before it becomes acute.

Wherever a full-time health unit has been established, in almost all cases it becomes firmly entrenched in the county government and becomes as much a part of that government as any penal or judicial activity. No longer is the tenure of the health office regarded as a mere gesture toward a popular local practitioner. The modern health officer is as much a county officer as the district

attorney or sheriff.-Walter M. Dickie, California Board of Health Weekly Bulletin.

A reader of the Journal asks us why we are opposed to the Koch cancer cure, and says that we ought to investigate the claims before placing our stamp of disapproval upon the cure. Answering briefly, we will say that we are opposed to any so-called cure that is exploited apparently for commercial purposes, and which has not proven its worth to unbiased minds. The Koch cancer cure has been investigated by a committee of reputable physicians who were appointed by the Detroit Medical Society for the purpose of discovering the truth or falsity of the claims put forth. The committee has made its unfavorable report, and it seems to us that the report is worthy of the acceptance of the medical profession.—J. Indiana M. A.

Three other committees have made unfavorable reports.

Word has been received from the Dermatological Laboratories that they appreciate the patronage given to the D. R. L. arsphenamines by physicians of California, Nevada, and Utah.

These products have been advertised in California and Western Medicine for some time, and it is gratifying to know that the readers have taken cognizance of the support of the advertisers.

The investment in hospital properties throughout the United States exceeds that of the American Telephone and Telegraph Company and the United States Steel Corporation combined.

In a single year 1117 new hospital buildings have been planned, involving \$309,000,000 in hospital construction, and yet how seriously has the business world taken such facts as these as compared to an announcement that the steel corporation had expended \$10,000,000 more for extensions and improvments?—C. C. Burlingame.

Hoxy, head of the National Cancer Research Institute, of the Hoxide Cancer Cure of Taylorville, Illinois, was arrested recently on the order of the state's attorney on a charge of practicing medicine without a license. We understand that this is but an advance action that will be followed by a charge of fraudulent practices. The Hoxide Cancer Cure is one that is boosted by the Chamber of Commerce of Taylorville, Illinois. It is on a par with other cancer cure fakes.—J. Indiana M. A.

These are some of the reasons advanced against the Sheppard-Towner Act:

The Sheppard-Towner Act fails to give food, shelter, clothing, medicine, or medical care for any mother or any child

Maternity education should be directed and supervised only by physicians.

Morally and legally, the proposition is indefensible. The Federal Government has no more right to collect money from New York, Illinoins, and Massachusetts and divide it among Montana, Wyoming, and New Mexico than it has the right to take money from Jones and give it to Smith. The Federal Government collects more money from a millionaire than from a laborer for the Federal Government, but it has no more legal or moral right to make Illinois "divide up" with Texas or Alabama than it has the right to make Rockefeller "divide up" with Eugene V. Debs.

Maternity backers tell Congressmen that maternity legislation is not wanted unless it can be administered by the children's bureau.—Bulletin of the Medical Women's National Association, October, 1926.

The Eyesight Survey and Service Corporation, with headquarters at Rochester, New York, is an enterprise that is asking for the endorsement of medical men and the patronage of various industrial and commercial concerns. It originates and is promoted by optometrists, and so far as we can see is for commercial gain, directly or indirectly.—J. Indiana M. A.

William E. Humphrey, federal trade commissioner, in an address before the National Petroleum Association in

Atlantic City, recently declared that the public was being robbed of more than a half billion dollars annually

through fraudulent advertisements.

"The people of this country," he pointed out, "are an-nually robbed of hundreds of millions of dollars through these fake advertisements, most of which are plainly false and known to be so by those who take money for their publication."-Ohio State M. J.

Without a great deal of mental effort, it may be shown that practically every human activity is directly or remotely related to public health, and there is today an unquestioned tendency to overload public health service with functions which, at the present time at least, it is not equipped to exercise; while on the other hand, notably in the case of the Federal Government but also notably in the case of the Federal Government out also in states and local communities, indisputable public health functions are assigned to departments, bureaus and agents of government which, only by the wildest stretch of imagination, logically belong to them and which, in many instances, they are totally unable or unwilling to perform.—Matthias Nicoll, Jr., New York State J. Med.

Henry Walter Gibbons, medical director of the West-ern States Life Insurance Company, in discussing selection of life insurance risks without physical examination before the Public Health Section of the Commonwealth. Club said:

"The practice of selecting risks for life insurance without the customary physical examination is considered hazardous until a study is made of its limitations and

practical application.

"The physical condition of the individual at the time he applies for insurance is only one of many factors he applies for insurance is only one of many factors which must be considered in estimating the value of a risk. All the other factors, such as build, age, personal history, family history, habits, morals, financial standing, occupation, etc., can be ascertained just as well by an intelligent layman as by a physician.

"In practice the agent is provided with an exhaustive questionnaire on which he records the answers of the applicant over the latter's signature. If a review of this blank, together with a commercial inspection report, indicates impaired health, the applicant is referred to a physi-

cian for examination.

"Authorized, experienced agents are permitted to solicit on this basis under the following limitations:

"White race only. "Ages 15 to 45.

"Self-supporting, unmarried women only.

"Policies not in excess of \$3000.
"No term or special policies.

"Active individuals engaged in nonhazardous occupa-"Prospects of healthy appearance, normal weight, good

personal and family history.

Prospects of good reputation in regard to character, habits, and financial standing.

"Experience shows that 85 per cent of all examined

applicants for insurance are passed as standard. In this per cent a medical examination would be unnecessary. Of the 15 per cent of doubtful risks 2 or 3 per cent are declined for reasons other than medical. Of the remaining 12 per cent about one-half would come within the limits imposed. Therefore there would be an extra hazard limits imposed. Therefore there would be an extra hazard to the company in only 5 per cent of all applications submitted under this plan. The extra mortality which might be expected in this small group from impairments which could be detected only by a physician: such as heart, lung, and kidney lesions, it is thought, will be offset by the saving of the medical fees for the entire group.

"Insurance without medical examination has been written in England since 1901. At present as much as £15,000 will be written on a single life, with no more medical guaranty than a certificate of health from the family

"On this continent the Canadian companies were first to adopt the plan in 1920. At present all the Canadian companies operate under it. The conditions influencing these companies were: the example of England; the difficulty of securing medical examinations in the sparsely

settled districts; the refusal of members of some medical societies to make examinations for the established fee; feeling that a proportion of the examinations submitted by physicians were worthless; a strong opinion that the saving of medical fees on small policies issued to a carefully selected group of individuals in the prime of life would offset any extra mortality that might be expected by accepting a few risks with impairments which could be detected only by a physician.

"For a period of five years the American companies watched the Canadian experiment with interest. When, in 1925, their statistics showed it to be apparently successful, we were quick to adopt the plan. At present 60 per cent of the American companies write nonmedical insurance. To date, \$250,000,000 of this business is

in force in this country.

"The experience so far has been satisfactory. The saving in medical fees has more than offset the mortality loss. In fact, the mortality rate has not exceeded that expected from the examined business. The losses from impairments which could have been found only by a physician: such as heart disease, tuberculosis, nephritis, apo-plexy, have not been above normal. The intelligence with which the agents handle the business has been gratifying. The time usually consumed by the agent in getting his prospect to the doctor can be devoted to soliciting more business. Whether the plan increases the total volume of business of a company is still unknown. The fear that companies would be defrauded by dishonest agents and by dishonest seekers for insurance has not been observed.

The feeling is prevalent among companies that, under the restrictions imposed, the selection by this method is just as safe for small policies as by the method requiring physical examination. The tendency at present is toward an extension of the plan to more companies and to increase the amounts written on one life.

"By the adoption of this plan insurance companies have no intention and no desire to minimize the importance of the trained physician to the insurance business. The immediate effect will be to lessen the number of examinations made by about 25 to 30 per cent. However, with the tendency toward more careful selection in large policies; with the further extension of substandard business so as to insure, on some basis, those with impairments which formerly caused declination; and with the further extension of periodical health examination of policyholders, there will be a growing need for expert medical advice.

"The tendency will be to lessen the number of medical examiners, but to make those who engage in the work more efficient and better paid. The examiner will be asked for his expert opinion on doubtful cases discovered by this premedical selection; he will be asked for an exact diagnosis and prognosis in substandard cases; he will be asked to advise policyholders how to prolong their lives. The day of the expert life insurance examination is at hand; the day of the careless, slipshod medical report is waning. The careless examiner has contributed to this movement. The competent examiner will always be highly appreciated in the insurance work."

Physical therapy is a term employed to define the treatment of disease by various nonmedicinal means. comprises the use of the physical, chemical and other properties of heat, light, water, electricity, massage, and exercise. There are certain definite indications for the use of some one or a combination of several of these physical agencies in the treatment of disease, but to depend on these agencies solely, to use them in lieu of better proved methods, or to employ them without having first thor-oughly studied the patient from the standpoint of diagonesis, is harmful practice.—Report of Committee Council on Physical Therapy, J. A. M. A.

Plastic Repair of Finger Defects Without Hospitalization—Gatewood, Chicago (Journal A. M. A.), reports a flap method for covering defects of the palmar surface of the hand or fingers when tendons are exposed. It proved very satisfactory in his case, and does not necessitate hospitalization.

#### CALIFORNIA MEDICAL ASSOCIATION

W. T. McARTHUR, M. D..... PERCY T. PHILLIPS, M. D..... President President-Elect ROBERT V. DAY .. ...Vice-President 

#### CONTRA COSTA COUNTY

The Contra Costa County Medical Society held its monthly meeting on October 30, 1926, at the offices of Doctors Abbott and Hely in Richmond.

Doctor McCullough of Crockett presided.

A very interesting and instructive paper on "Urology," accompanied by lantern slides, was given by W. W. Cross of Oakland.

Doctor Vestal moved that the society pass a resolution to the effect that the society express its willingless to co-operate with the American Medical Association in their plan of medical relief in disaster. The motion was seconded by Doctor Campbell and passed.

The president appointed Campbell, Carpenter, and Abbott to arrange for the annual banquet to be held December 4, 1926, at which time election of officers will

A light supper was served at Martin's Grill.

Those present: U. S. Abbott, G. W. Bumgarner, J. W. Bumgarner, P. C. Campbell, L. W. Weishoff, H. C. Carpenter, Rosa Powell, H. Vestal, Richmond; J. Beard, Martinez; J. H. Oldburg, Walnut Creek; J. M. McCullough, W. A. Rowell, Crockett; S. N. Weil, Selby.

S. N. WEIL, Secretary.

#### MARIN COUNTY

Marin County Medical Society-A meeting of the Marin County Medical Society was held on October 28 at the residence of Dr. A. H. Mays at Sausalito. The following members were present: Doctors Landrock, Larson, W. F. Jones, C. W. Clark, J. H. Kuser, and A. H. Mays. After a demonstration of some rare ancient medi-Mays. After a demonstration of some rare ancient medi-cal works, dating from the fifteenth and sixteenth cen-turies which proved extremely interesting. Doctor Mays read a paper on the "Gastrointestinal Disturbances of Cardiac Disease," after which a general discussion fol-lowed. The business of the meeting being terminated, the members were invited to the dining-room for supper.

The next meeting will be held on November 18, at the San Rafael Club for the purpose of nomination and election of officers for the ensuing year.

A meeting held on November 18 at the San Rafael Club was called to order by the president, G. M. Land-rock, at 8 p. m. The following members were present: C. M. Landrock, A. H. Mays, Charna Perry, C. F. Larson, C. W. Clark, H. O. Howitt, and J. H. Kuser.

The minutes of the last meeting were read and approved. On motion made and duly seconded it was decided to hold the annual banquet on the last Thursday in January, and the secretary was instructed to make all necessary arrangements.

Election of officers for the ensuing year resulted as follows: C. F. Larson, Sausalito, president; C. W. Clark, San Anselmo, vice-president; William F. Jones, San Rafael, secretary-treasurer; G. M. Landrock, Mill Valley, delegate to state society; J. H. Kuser, San Rafael, alternate to state society; H. O. Howitt, Charna Perry, and A. H. Maye, trustees. A. H. Mays, trustees.

Moved and seconded that the meeting in December be postponed to January. Carried.

J. H. KUSER, Secretary.

#### NAPA COUNTY

Napa County Medical Society--At the regular monthly meeting of the Napa County Medical Society held on November 3, 1926, at Yountville, the following officers

were elected for 1927:
M. M. Booth, St. Helena, president; G. J. Wood, St. Helena, vice-president; E. H. Rue, Calistoga, secretary-treasurer; W. O. Moore, Yountville, delegate; G. I. Dawson, Napa, alternate.

#### ORANGE COUNTY

Orange County Medical Association-The regular meeting of the Orange County Medical Association was held at the American Legion hall in the City Hall building, 320 East Chapman Avenue, Orange, November 2, at 7 p. m.

Business session followed a chicken dinner served by the Women's Auxiliary of the American Legion.

John V. Barrow of Los Angeles presented the paper of the evening on the subject of "Intestinal Protozoa." The speaker, who had done a great deal of work in the development of this field of medicine, gave us all the most recent and worthwhile ideas.

DEXTER R. BALL, Secretary.

#### PLACER COUNTY

The Placer County Medical Society held its annual meeting in Auburn, Saturday evening, November 13, 1926, President J. A. Russell presiding.

This being the annual meeting no literary program was presented.

The application of Ernest E. Myers of Roseville, for membership to the society was acted upon favorably and he was elected to membership. The applications of Samuel Charles Glassman and Max Dunievitz of Colfax were received and upon a favorable report they were elected subject to confirmation by the California Medical Association.

The following officers were elected to serve for 1927: A. Russell, president; R. H. Eveleth, vice-president; Robert A. Peers, secretary-treasurer; Charles J. Durand, associate secretary; H. N. Miner, delegate; R. H. Eveleth, alternate.

A number of routine matters were considered and the teeting adjourned.

R. A. Peers, Secretary. meeting adjourned.

#### SACRAMENTO COUNTY

The Sacramento Society for Medical Improvement held its October meeting in the Gold Room of the Sacramento Hotel on the evening of the 19th, President Schoff presiding, with an attendance of fifty-three, the largest attendance thus far this year. The minutes of the September meeting were read and approved. There were no case reports.

Just as October brings to us all the joys of autumn, so this October added to our medical joys by allowing so this October added to our medical joys by allowing us the pleasure of listening to our nationally known neurological surgeon, Howard C. Naffziger. The doctor chose for his discussion the subject, "The Treatment of Severe Head Injury." He first recounted some most interesting research that had been developing in his department during the last two years' time. This dealt with the comparative results of brain injury due to depressed fractures: first, where there was a sudden shock asso-ciated with the depressed fracture; and, second, where the depression was identical with the first, but both the shock and immediate brain injury was eliminated. Naffziger compared the mortality of what he considered "too early surgical interference" in certain types of head inju-He stressed the importance of recognizing the value of allowing the patient to recover from the immediate shock before rushing to surgery. This is sometimes difficult to do, in the face of everybody wishing for something to be done immediately. He also clearly pointed out that the real factor which would decide for operation is not the condition in which you find the patient at the moment, but is the uphill and downhill course that is progressing from the condition of the patient as it was before. The speaker clearly differentiated what we might expect to find where there was a free fluid collection from those signs that may be expected where we had the fixed type of fluid, that is, edema of the brain. Whereas drainage is a very important consideration with free fluid present, attempts at relief of pressure through a window where we have brain edema, is of no value. Naffziger cleverly compared such a latter procedure to the opening of a window in a cast when you are having a generalized swelling of the parts enclosed in the cast. He discussed the value of hypertonic solutions in this condition.

Dunlap, Rulison, Gundrum, and Scatena discussed the

The suggestion of establishing a group service for the Sacramento Society by the Retail Credit Association was not deemed a good one. It is thought that this matter of credit and collections is best considered as an individual The Board of Directors also reported the receipt of applications from Ruth Carpenter Hart, Victor W. Hart, V. B. Kennedy, John F. Drew, and Dave Ford Dozier. The above applications for membership took their usual first reading.

We were honored by the presence of the entire Board of Medical Examiners. Dr. P. T. Phillips, who has been re-elected president of the State Board, and who is also president-elect of the state society, spoke of the pleasure of being with us. Judge Biankey, the legal member of the board, also expressed his pleasure at meeting with us.

Schoff called attention to the next meeting of the Northern District Society to be held in Woodland. The meeting adjourned to the banquet table.

BERT S. THOMAS, Secretary.

#### SAN DIEGO COUNTY

San Diego County Medical Society - The county society had the privilege of listening to Dr. Frank Hin-man of San Francisco, October 12. Hinman outlined the procedure in the diagnosis and treatment of genitourinary disturbances. Beginning with the more simple methods and the diseases of the more accessible parts, he went on with the more intricate processes and more difficult cases. With lantern slides he summarized the whole system of genitourinary diagnosis and disease, showing cause and

effect by means of diagram and outlines.
On Tuesday, October 19, the Mercy Hospital staff, at the suggestion of its president, Doctor Burger, devoted the evening to a general discussion of what looked like a developing epidemic of some infection, attacking chiefly a developing epidemic of some infection, attacking chiefly young adults, characterized by general malaise, a moderate range of temperature elevation and fairly complete icterus. Discussion was opened by Doctor Pollock and continued by Redelings, Frank Carter, Will Potter, Barr, Russell, Strahlmann, Tanner, Ratty, Omelvena, Baxter, Welpton, Dement, and Burger. At the conclusion of the discussion Redelings made a motion that the physicians be urged to report on such cases to the Health Department and co-operate in every way with the authorities.

The medical staff of the County General Hospital were entertained on October 26 by an excellent clinical

program presented by the members of the house staff and discussed by the visiting members on service. Those presenting the program were Jacobson, Toomey, Babienco and Potasz of the house staff. Discussion by Rolph, Redelings, Molitor, Porter and Brown of the visiting staff.

Quite a generous delegation of San Diego doctors attended the meeting of the Southern California Medical Association in Los Angeles, November 5 and 6, and enjoyed an excellent program.

November 9 was election day for the San Diego County November 9 was election day for the San Diego County Medical Society. The officers elected for 1927 are as follows: M. C. Harding, president; J. M. McColl, vice-president; W. H. Geistweit, Jr., secretary; Willard H. Newman, treasurer. Councilors: C. P. Baxter, E. H. Crabtree, Will Potter. Delegate to the state society: Martha Welpton, M. D., two years; alternate, L. B. Mahan, M. D., two years.

The completed personnel of the Council for 1927 will not be available for publication until after January 1.

These elections, held throughout the day, were followed in the evening by the annual dinner of the medical society in the banquet hall of the Golden Lion Tavern. After an enjoyable dinner President Arnold introduced the subject of the annual medical lecture course, which will be given in January, 1927, by Dr. William McKim Marriott of Washington University Medical School, St. Louis. He

will discuss subjects connected with nutrition and metabolism and the chemical processes involved in their dis-turbances. This annual course is somewhat unique in the history of such efforts, as it is financed by the members of the society as a free will offering to medical educa-tion, although all medical men and women are invited to attend in the community or neighborhood. Doctor Hig-bee, who has been largely responsible for the initiation of these lectures, then spoke briefly on the subject of their support. He was followed by enthusiastic remarks by Harding, Fox, Thornton, Burger, and O'Neill. Mr. Alexander, the promoter of the new Medical Arts Building, spoke briefly as to its equipment, time of its completion, and the cost of its floor space. President Arnold spoke in enthusiastic terms of the policies and attitude of San Diego's new Superintendent of Education, Mr. William John Cooper, in the matter of medical inspection of teachers. He then called for volunteers to form a panel from which the Board of Education might be permitted to call physicians to make physical examinations of teachers when required. The next item on the program was a very interesting picture show by Doctor Redelings, depicting medical men and women of San Diego in their profes-sional, social, and family activities. The results of the election held during the day were then for the first time made public, after which the gathering enjoyed the address of the evening by their distinguished guest from San Francisco, Edgar L. Gilcreest, who spoke in a delightfully reminiscent manner of his personal knowledge of Sir William Osler. He spoke entertainingly of Osler the clinician, the pathologist, the teacher, the writer, the citizen, and dieth effectionately upon the personality of the and dwelt affectionately upon the personality of the "chief," as his students frequently referred to him. It was a magnificent tribute to the personality and the humanity and the enduring energy and application of this greatest of American clinicians

Our next guest of distinction will be Elliott P. Joslin of Boston, perhaps the greatest living authority on diabetes. He will address the medical society following a dinner tendered to the profession by the Scripps Meta-bolic Clinic of La Jolla. This dinner will be served at the Casa de Manana, La Jolla, on the evening of No-vember 18.

ROBERT POLLOCK, M. D. vember 18.

#### SAN JOAQUIN COUNTY

San Joaquin County Medical Society—The stated meeting of the San Joaquin County Medical Society was held Thursday, November 4, 1926, at 8 p. m. at the local Health Center, 129 South American Street.

The meeting was called to order by Vice-President R. T. McGurk. Twenty-five members were in attendance: E. L. Blackmun, Winifred Biethan, Fred J. Conzelance: E. L. Blackmun, Winifred Biethan, Fred J. Conzelmann, J. V. Craviotto, J. D. Dameron, J. F. Doughty, Linwood Dozier, C. F. English, F. T. Foard, Minerva Goodman, R. R. Hammond, C. D. Holliger, J. P. Hull, H. E. Kaplan, Grace McCoskey, R. T. McGurk, Barton Powell, G. H. Rohrbacher, F. Sheldon, G. H. Sanderson, J. J. Sippy, Margaret H. Smyth, C. V. Thompson, G. J. Vischi, B. F. Walker. Doctors Bishop and Gallegos as visitors, and H. H. Markel as guest and speaker of the evening. evening.

The minutes of the previous meeting were read and approved.

The committee on admission recommended the acceptance of H. L. Gregory as a member of the society. The chairman, in accordance with the constitution, declared Doctor Gregory duly elected an active member of the society.

A communication relative to the society participating in the parade of the American Legion, November 11, 1926,

Karl Ross Post No. 16, the American Legion, was read.
Action: Dewey Powell moved, seconded by Dozier, that the secretary reply by letter that the society will participate as individual members, carried.

The Chair announced that the nomination of officers was in order. The president called for the nominations of Board of Directors.

Eighteen members were nominated for the Board of Directors, five for the Committee on Admission, five for the Committee on Ethics, three for the Committee on Finance, and three for the Committee on Program.

As delegates and alternates for state association: Barton J. Powell, delegate; B. F. Walker, alternate. R. T. McGurk, delegate; Margaret H. Smyth, alternate.

The Chair announced Dewey R. Powell, R. T. McGurk, and Fred J. Conzelmann as a committee of three from the society at large to work with the House Committee of the Medical-Dental Building, consisting of three physicians: L. Dozier, L. R. Johnson, Hudson Smythe; and three dentists, C. L. Daingerfield, H. J. McGillvray, and F. A. McCan.

Dozier moved, seconded by Powell, that this committee be appointed as recommended by the Chair. The committee is to confer with the House Committee of the Medical-Dental Building relative to a meeting place, lounging room and library in the building, with authority to sign the contract for the room, and with the view of ascertaining the expenses necessary for furnishing the room and reporting the same to the society at the next meeting.

W. F. Walker stated that there would be a cornerstonelaying ceremony, and that the president of the California Medical Association has been invited to speak at that occasion. Doctor Walker believed it would be appropriate to have a brief history of the San Joaquin Medical Society, with a list of members to place in the stone.

Dewey Powell moved, seconded by English, that the secretary be appointed as a committee of one to attend to this matter of placing a short history of the society and a list of members in the cornerstone.

The presiding officer introduced Dr. H. H. Markel of the University of California to speak on the "Treatment of Faulty Postures." The speaker stated that for a just appreciation of faulty postures a knowledge of their causes were necessary. Faulty postures were caused by the adaptation of human body to the vertical position from the horizontal. The erect position is the cause of many pathological conditions, as varicose veins, enteropor displacements of viscert and kidney conditions which lead to derangement of functions. Faulty positions result from congenital causes such as dislocations existing from birth; or acquired, such as infantile spinal paralysis, tuberculous joints, or disease of bone, resection of ribs, rickets, etc. Rickets lead to spinal curvatures, marked drooping of the shoulders, exaggerated bow-legs and knock-knees, and many other conditions which are distressing in appearances and handicap the individual from becoming a self-supporting citizen. Many of these pathological conditions can be remedied in whole or in part. If treatment is instituted early all can be helped and most of them cured. The speaker showed lantern slides and moving pictures which illustrated in a very striking way many conditions of faulty posture together with the measures and physical exercises needed for their correction.

The subject was discussed by Dameron, Goodman, English, Thompson, and Sheldon, and many questions were asked which Markel answered in a very instructive way in closing his discussion.

Doctor Dameron spoke briefly about his work with crippled children, and introduced the resolution that the San Joaquin County Medical Society lend its moral and professional support to the California Society for Crip-pled Children by assisting it in organizing and conducting diagnostic clinics for crippled children throughout the county of San Joaquin. The resolution was seconded by Dewey R. Powell and carried.

The Chair was authorized to appoint a committee to accomplish the object indicated in the resolution. The Chair appointed Dameron, Sippy, and Hanson to act as this committee. On request of Dameron that it should be at least a committee of ten, authority was granted to the chairman of the committee to enlarge it.

FRED J. CONZELMANN, Secretary.

#### 36 SANTA BARBARA COUNTY

Santa Barbara Medical Society-The regular meeting of the Santa Barbara County Medical Society was held at the Cottage Hospital on Monday evening, November 8, with President Henderson in the chair.

There were present twenty members and one visitor, Doctor Bischoff.

The minutes of the previous meeting were read and approved.

The first paper of the evening was "Pseudomuscular Dystrophy" by J. B. Manning, with report of two cases. Nuzum gave a short report on the autopsy findings in the use of colloidal lead in the treatment of tumor tissues, which was discussed by Ullmann, who brought out the use of various preparations of lead, and by Bischoff, who told of the preparation of various forms of lead.

Doctor Nuzum then gave a most interesting report of his attendance at clinics recently held at the Cleveland meeting of Interstate Postgraduate Assembly, and gave abstracts of Doctor Polak's talk on tumors of the uterus; Ledman of New York on the heart; Scott of Cleveland on aortitis; Cabot on tuberculosis of the kidneys; Braash on pyelitis; a South American man on fermentations of intestinal dyspepsia; Plummer on thyroids; Barker on types of individuals; Wood on etiology of cancer; another man on serum treatment; and Mayo on generalities.

The application of W. E. Johnson for membership was read and ordered reported to the censors—Profant, Stevens, and Allen Williams.

No further business coming before the meeting, the same adjourned. WILLIAM H. EATON, Secretary.

#### SANTA CRUZ COUNTY

Santa Cruz County Medical Society-The annual session of the Santa Cruz County Society was held at session of the Santa Cruz County Society was held at Ben Lomond Lodge, Sunday, November 14, with the following members present: Drs. Manuel B. Bettencourt, Watsonville; Willis R. Congdon and Mrs. Congdon, Santa Cruz; Jessie C. Farmer, Felton; John M. Gardner and Mrs. Gardner, Santa Cruz; Willis G. Hatch and Mrs. Hatch, Santa Cruz; W. E. Musgrave, Ben Lomond; Alfred L. Phillips, Santa Cruz; Percy T. Phillips, Santa Cruz; W. A. Phillips, Ben Lomond; Samuel B. Randall, Santa Cruz; Ethel M. Watters, Santa Cruz; and Dean S. Woodward Watsonville Woodward, Watsonville.

All officers were re-elected for 1927, as follows: W. E. Musgrave, president; A. L. Phillips, vice-president; D. S. Woodward, secretary-treasurer. Delegate to California Medical Association, Ambrose F. Cowden; alternate, Jessie C. Farmer.

Dues for 1927, including State Association dues, were

fixed at \$12.

#### New Fee Schedule Adopted

The public quite as much as doctors are interested in doctors' fees. The society has had a revision of their old schedule under advisement for some months, and at the annual meeting unanimously agreed to the following, to be in effect until modified by further action. The schedule is introduced with these important paragraphs:

In adopting the following fee schedule, the Santa Cruz County Medical Society wishes it clearly understood that the quoted fees are average fees for average services

under under average conditions.

Nothing in the schedule shall be in conflict with a physician's duty and privilege to adjust his fees to the tient's ability to pay, nor with the fact that every citizen is entitled to all essential health care regardless of his economic status, as provided for in our ethics:

Office visits\$	2.50
General examinations or so-called periodic health examination (exclusive of laboratory, x-ray, and	5.00
similar special services)	1.00
Telephone advice	1.00
Laboratory fees (each specimen, depending on nature of specimen and required work)\$1.50 to	10.00
Vaccination toxin-antitoxin, antityphoid and simi-	
lar protective inoculations (each)(Plus cost of material)	2.50
Hospital visits	3.00
Home visits (7 a. m. to 10 p. m.)	3.00
Home visits (10 p. m. to 7 a. m.)	5.00
Mileage, beginning one mile from office-per mile	1.00
Consultations: Consultant	10.00

Attending physician.....

5.00

Anesthetic \$5.00 to	20.00
(Plus cost of material)	
Assisting at operation\$10.00 to	50.00
Normal confinement (including all essential pre-	
natal care and six weeks' postnatal)	50.00
Service to additional patients at the same family	
visit	1.50
Surgery: Removing tonsils and/or adenoids	50.00
Minor operations\$ 5.00 to	100 00
Major operations 100.00 to	500.00
X-ray examinations or treatments\$5.00 to	50.00
Dental X-ray: First tooth	1.50
Each tooth thereafter	
All teeth	7.50
Other diagnostic or treatment services requiring	
expensive apparatus\$5.00 to	25.00

Mr. Morton, manager of the Ben Lomond Lodge, was tendered the thanks of the society for the excellent arrangements provided for the meeting and for the unusually good luncheon served at 1 o'clock.

#### Next Meeting

At its next meeting, Wednesday, evening, December 8, at 8 o'clock, the society will be the guests of Dr. and Mrs. Grant Hatch at their home in Santa Cruz. A prominent medical educator from San Francisco will discuss the problem of recognizing heart disease and the management of patients suffering from this complaint. Members of the society will add their experiences and opinions to those of the invited guest.

#### Projected Work for 1927

Most of the doctors of Santa Cruz County who are eligible by education and conduct to become so, are now members of the medical society. Increasing attendance at meetings and in interest has stimulated the members to undertake an extensive program for the next year. Two of the meetings will be open to all citizens. These will be addressed by speakers of prominence versed in popularizing medical information; one session will be a joint four-adjacent counties medical meeting to be addressed by prominent invited speakers; one meeting will be a joint one by physicians, attorneys and dentists, and the rest will be devoted to problems of particular concern to all practicing physicians.

This is an unusual undertaking for the doctors of a small county, and the value to all citizens of such efforts is incalculable.

# \* siskiyou county

Siskiyou County Medical Society—The Siskiyou County Medical Society met in the Yreka Inn, Yreka, on the 7th of November. Among those present were: Ankele, Bathurst, Dickinson, Heaney, Kalman, Morse, Nutting, Pius, Tebbe. The members, joined by Mrs. Morse and Mrs. Tebbe, were guests of the society at dinner. Following that, Doctor Dickinson, president, called the meeting to order. Minutes and correspondence were read and approved. The secretary was instructed to write to Doctor Cartwright of Dorris inviting him to join the society. The resolution of Doctor Bathurst that a short report on the proceedings of meetings should be published in the local papers was unanimously accepted. The following officers were elected for the coming year: C. W. Anekle, Dunsmuir, president; S. S. Kalman, vice-president; H. A. Morse, Hilt, secretary-treasurer; S. S. Kalman, delegate; alternate to be left open.

C. C. Dickinson read an excellent paper on "Rheumatic Arthritis," which was discussed at length. The next meeting will be held in Dunsmuir in the spring as early as road conditions permit.

S. S. KALMAN, Secretary.

#### CHANGES IN MEMBERSHIP

New Members—John Brady Rogers, Los Angeles; B. Frank Sturdivant, Pasadena; Charles R. Longsworth, San Diego; Arthur H. Beede, Arthur L. Bloomfield, George

B. Dewees, Walter H. Frolich. Charles Caldwell Landis, Walter Lawrence, Rober B. McKenzie, Stanley Mentzer, Raymond Joseph Millzner, Victor Sheldon-Smith, Ernest Wolff, San Francisco; Hunter Lee Gregory, Winifred Biethan, Stockton; Raymond W. Bliss, Margarete D. Baker, Santa Ana; Arthur Colby Robbins, Garden Grove; Lewis Henry Stanton, Orange.

Transferred—George A. Broughton, from Los Angeles County to Ventura County.

D. L. Burgeson, from Los Angeles County to Orange County.

Stephen A. Craig, from Los Angeles County to San Bernardino County.

Walter M. Dickie, from Los Angeles County to Alameda County.

C. L. Emmons, from Los Angeles County to San Bernardino County.

Francis C. Ferry, from Los Angeles County to Orange County.

M. P. Hambleton, from Los Angeles County to San Bernardino County.

W. G. Pitts, from Los Angeles County to San Francisco County.

R. M. Ritchey, from Los Angeles County to Napa County.

J. H. Titus, from Los Angeles County to San Bernardino County.

Herbert F. True, from Los Angeles County to San Francisco County.

L. E. Wilson, from Los Angeles County to Monterey County.

J. E. Whitlow, from Los Angeles County to Ventura County.

H. W. Vollmer, from Riverside County to Napa County.

Deaths—Delamere, Henry S. Died at Berkeley, November 4, 1926, age 67. Graduate of the University of Vermont College of Medicine, 1883, and licensed in California, 1888. Doctor Delamere was a member of the Alameda County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

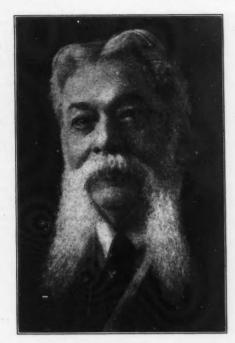
Hirschkowitz, Lesser. Died at San Francisco, October 27, 1926, age 67. Graduate of the University of Berlin, Germany, 1885. Licensed in California in 1888. Doctor Hirschkowitz was a member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Holcombe, Arthur L. Died at Long-Beach, November 2, 1926, age 61. Graduate of the University of the city of New York, 1888. Licensed in California in 1889. Doctor Holcombe was a member of the Los Angeles County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Lay, Frederick Herbert. Died at Stirling City, September 11, 1926, age 75. Graduate of the Bellevue Hospital Medical College, New York City, 1878. Licensed in California, 1895. Doctor Lay was a member of the Butte County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Paul, E. Burton. Died at Los Angeles, September 21, 1926, age 43. Graduate of the Washington University Medical College, St. Louis, Missouri, 1907. Licensed in California in 1919. Doctor Paul was a member of the Los Angeles County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Smith, Frank Edwin. Died at Los Angeles, October 17, 1926, age 36. Graduate of the University of Pittsburgh, Pennsylvania, 1914. Licensed in California in 1919. Doctor Smith was a member of the Los Angeles County Medical Society, the California Medical Association, and the American Medical Association.



HUBERT NADEAU 1838-1926

It is unusual that a medical association in any part of America can record the affiliation of a member for forty-nine years; but the Los Angeles County Medical Association does record that fact in the case of Dr. Hubert Nadeau, who died here last week. And during these last years of retirement Doctor Nadeau maintained his membership in the regular manner with jealous pride.

The Association has an equal pride in recording this fact because of the loyalty, integrity and fine professional character of Doctor Nadeau.

Dr. Hubert Nadeau was born in Marieville, Canada, May 11, 1838, of French-Canadian descent.

He attended the St. Hyacinth College in Canada and later was a student at the College of Physicians and Surgeons of Montreal, receiving his M. D. degree in 1862.

For about four years he was in private practice in Canada, later removing to Chicago, where he remained for ten years, coming to California in 1876, having been in Los Angeles since that time.

He served as United States pension examiner from 1882 until 1884 and was coroner of Los Angeles County from 1875 until 1884. He was also ex-member of the Los Angeles Board of Health. Had the chair of clinical pediatrics, College of Medicine, U. S. C.

The Los Angeles County Medical Association was founded in January, 1871. It was legally incorporated in 1878, but it had functioned under the original name from 1871. Doctor Nadeau became a member in 1877, and was its vice-president in 1882, and president in 1883. He was very active in all of the duties of membership as long as he was in active practice. For the past fifteen years he has been retired, but he watched the workings of the organization with undiminished interest. He was always among the first to pay his annual dues, and objected to any movement to place him on the honorary list, saying he wanted to be regarded as an active member as long as he lived. He was one of the first to subscribe to the Permanent Quarters Fund and paid his subscription promptly.

Such devotion to the high purposes of organized medicine over so long a period is indicative of the highest

ideals, the character, the conscience and broad vision of the individual. Young men will do well to pause and consider the life of Dr. Hubert Nadeau.

A committee has been appointed to draft suitable resolutions expressing the high regard for this character and devotion, which will be inscribed upon the records for all time.—Bulletin Los Angeles County Medical Association.



WILLIAM HASTY FLINT 1852-1926

William Hasty Flint, born May 20, 1852, West Baldwin, Maryland, died September 5, 1926, Santa Barbara, California. He was graduated from Cornell University (B. A.), 1874, and received his degree of Doctor of Medicine from the Bellevue Hospital Medical College, 1877. The years from 1881 to 1882 were devoted to postgraduate study at the University of Bonn, Germany, and the University of Lausanne, Switzerland. He then returned to America and for a period of ten years practiced in New York City, being associated with Dr. Astin Flint, Sr. (to whom he was related), and was a member of the visiting staff of the Presbyterian Hospital, New York City. Doctor Flint came to Santa Barbara, California, in 1893, where he was engaged in active practice until his death. He was a member of the Santa Barbara County Medical Society, of which he was twice president, California Medical Association, and the American Medical Association.

The high esteem in which this fine man was held by both patients and friends is well expressed in the following quotation from a letter written by one of his old friends to Doctor Flint's daughter shortly after his death: "He had a rare and beautiful philosophy of acceptance of adversity with a sweet smile and courage that never failed him, and possessed in the fullest measure those qualities which make the physician beloved by his patients."

He was a kind, altruistic and learned physician, whose buoyant spirits radiated through all the years of his full and useful life. His brilliant and constructive mind, together with his professional attainments and social charm, endeared him to all who had the good fortune and pleasure of his acquaintance. The bereavement of his family is shared by his many friends, both lay and medical.



JAMES WILLIAM JESSE



SAMUEL HAWKINS BUTEAU

#### JAMES WILLIAM JESSE 1857-1926

For thirty-five years a practicing physician and political figure in Santa Rosa, Dr. James William Jesse died at his home November 3, 1926, following a collapse suffered six weeks before at his office. He was born in Mexico, Missouri, and came to Santa Rosa thirty-five years ago and quickly established a large practice. He was well known as one of the foremost physicians and most skilled surgeons in northern California.

He served for many years as county physician, and a number of years ago established the Mary Jesse Hospital, named in memory of his mother. Although to those who did not know him he was of seemingly gruff personality, his charitable works have been exceeded by few. No person in need of medical attention was ever refused it, and one bed in his hospital was always at the disposal of the sick and needy. He himself disclaimed this, but there are many in Sonoma County who bear witness to his humanity.

Doctor Jesse is survived by his wife, Mrs. Alice Jesse, a daughter, Mrs. Bryant Necker of Los Angeles, and two granddaughters, Margaret and Mary Elizabeth Necker.

#### SAMUEL HAWKINS BUTEAU 1864-1926

Dr. Samuel Hawkins Buteau, son of Dr. Samuel Aubert Buteau and Helen N. Hawkins Buteau, was born January 4, 1864, at Cape Ger-

born January 4, 1864, at Cape Gerardo, Missouri. The family moved to Centerville, California, in 1870 and his father continued to practice medicine there until the time of his death in 1896.

Doctor Buteau attended the Alviso school situated between Centerville and Alvarado until he reached the age of 13, and then attended the Oakland High School. After leaving the Oakland High School he took the Alameda County teachers' examination and passed with honors, securing a first grade certificate. He was then but 17 years of age. Because of his years, he was not qualified to fill a teacher's position in Alameda County, so he took another examination in Kern County and secured a teacher's position there. The following year he was appointed principal of the Warm Springs school near San Jose, and while there he decided to take up the study of medicine. All the spare time he had he spent in reading medicine with a very intimate friend, the late Dr. Charles Fisher, and with Doctor Allen of Centerville. Later he became the principal of the San Lorenza school. From here he entered Cooper Medical College, graduating in the class of 1889.

Soon after his graduation he was appointed resident physician of the Oakland General Hospital situated on Eighth and Myrtle streets. He continued in that position for about two years and during that time was allowed the privilege of private practice. After leaving the Oakland General Hospital he opened an office at Thirteenth and Broadway, in the same building in which he was located at the time of his death. Several years after his graduation from Cooper Medical College he served as an instructor and teacher in histology. He spent the major portion of the year 1900 in Europe studying his profession and familiarizing himself with the arts of the old world. On his return from Europe he became associated with Fabiola Hospital, where his ability was recognized

and he soon came to dominate the character of work performed in that institution.

Early in his medical career he became a warm friend of Dr. Joe Price, with whom he spent much time and study. Through Doctor Price he learned to know John B. Deaver, and on his early Eastern sojourns he spent much time at the clinics of these two men.

Early in his career he became the recognized surgeon of Oakland. He was the visiting surgeon at Alameda County Hospital for nine years. In 1909 he was appointed a trustee of the Samuel Merritt Hospital, which was nearing completion. Doctor Buteau took the reins of this institution and guided it up to the time of his death.

Doctor Buteau, being a natural teacher, taught more young doctors surgery than any other physician in this community. He was president of the Alameda County Medical Association, a Fellow of the A. M. A., and the American College of Surgeons. He held membership in the National Surgical and Gynecological Society and the Pacific Coast Surgical Society. He was one of the organizers and the first president of the Oakland Surgical Club.

Bedside Study of Air Hunger—By air hunger is meant the subjective experience of air want. Dyspnea, tachypnea, hyperpnea, and cyanosis are attendant phenomena and can be evaluated by objective observation, but the feeling of air hunger is what alarms the patient and leads him to seek medical aid. The physician is called for a single reason, and that is to relieve air hunger, a subjective symptom that always is alarming to the patient. According to C. F. Hoover, Cleveland (Journal A. M. A.), the symptom may be due to a misinterpretation of a neryous experience that very commonly plagues introspec-tive persons, although their internal and external respiration is quite normal. Genuine air hunger may originate from disturbances in the nerve supply to the lung; or there may be disturbances in the cardiorespiratory function, or internal respiration may be disturbed by altera-tion of the chemical composition of the blood or by disturbances in the lymph or blood supply to the respiratory center. The most common exhibition of air hunger is associated with cardiorespiratory disease, and as the cardiac respiratory functions are interdependent, the problem is to learn how much each may share in produc-ing the symptom. Obviously, if air hunger is due to pulmonary stasis, cardiac stimulation is indicated. If lung ventilation is at fault the problem is different. Hoover discusses: (1) paroxysmal tachypnea of which he has seen discusses: (1) paroxysmal tachypnea or which he has seen six cases, occurring in the course of mediastinal disease which in two cases was associated with unmistakable syphilitic disease and syphilitic aortitis. Two were cases in which either syphilis or tuberculous disease was the cause, as both diseases were present, and two patients were tuberculous. The attacks in one patient were always associated with bradycardia. (2) Paroxysmal hyperpnea associated with bradycardia. (2) Faroxysnai hyperphea of which he has seen only one case; slumber apnea and waking hyperphea; cardiovascular disease and myexedema. There is an interesting relation between air hunger and retention of body fluids that is sometimes seen in chronic cardiovascular disease. Improvement follows the use of some digitalis or theobromin preparation, and as the dropsy recedes the cardiectasis diminishes and the rate and volume of the pulse improve. But there are cases in which digitalis and caffein in large doses are ineffectual, but with the administration of merbaphen (nova-surol) by the intravenous method the dropsy recedes, air hunger ceases, and the pulse pressure, heart rate and size of the heart's chambers are unchanged.

All in all, human nature is essentially the same. Four thousand years ago there were unquestionably charlatans and unquestionably credulous believers to fall for what the charlatans told them. There are today in the United States more than a hundred varieties of quackery and cultism. With the laxity of our legislation, with the methods by which cults propagate in this country, with the fertility of invention that characterizes the American mind, ten years from today, if there are new discoveries in fundamental sciences, there will be cults founded on each of them, and at least ten million imbeciles who think they are smart enough to try them.—Morris Fishbein. Minnesota Med.

## UTAH STATE MEDICAL ASSOCIATION

W. R. CALDERWOOD, M. D., Salt Lake.......President E. H. SMITH, M. D., Ogden.....President-Elect FRANK B. STEELE, M. D., Salt Lake....Secretary J. U. GLESY, M. D., Salt Lake...Associate Editor for Utah

#### RUTS

One of the easiest things to get into and one of the hardest things to get out of, the rut is one of the greatest perils which any man may find on the road between cradle and grave. Hence the rut is perhaps the greatest menace of the physician's life. To do the same thing over and over in the same way is so easy, especially when quite frequently it gives a fairly high percentage of good results. It is so easy to hold fast to old tenets rather than to unlearn old lessons and accept new creeds. Yet the progress of the world has ever been activated by those who did not follow the rut or the groove—by men who blazed a new path rather than being content to follow the rutted road.

And one of the main troubles with the rut is that, like the deep groove in a roadway worn by much use, it is confining—makes for a narrow-mindedness on the part of him who falls into its habit, limits as it were his point of view, tends to make of its follower a confirmed egotist. Generally one finds the man in the rut a man who has an unjustified sense of his own ability rather than the reverse. And only when he is jolted or urged or pushed or shoved or otherwise jacked up and out of his narrow track, does he begin to realize the wider horizon beyond other men of other views.

Yet when the rut no longer leads in the direction which every true-minded physician should travel-the direction of the greatest efficiency in end results, then it is time to leave it and follow the newer, better path. And there are so many means today by which the practitioner of the healing art may lift himself from the ruts of professional life. There are magazines galore, more than he has time to read. There are societies with scientific programs he may well attend and profit in attending. There are review classes existing or which he himself perhaps may organize. There are trips to be taken to centers of knowledge, to conventions where he may rub wits with the leaders in his craft. There are great institutions-great medical workshops as it were-in which he may spend a few weeks, and from which he may return with the old-time enthusiasm which marked his student days revivified. Rarely does the writer attend a meeting of medical men without bringing away from it either new knowledge or a re-emphasis on old knowledge, or at least a diversion of his thoughts on certain subjects into new channels and away from old ruts of thought.

We admit that there are times when getting out of a rut is as uncomfortable as getting out of a warm bed on a cold winter's night in response to some frantic appeal for aid which may or may not be justified—may be nothing more than that frantic fear so often excited by the midnight hour when grim ghosts of phantasy walk. We admit that at times being shaken out of a nice, well-worn rut, to a realization of our own paucity of knowledge on a subject concerning which we had formerly felt very well satisfied, is as spiritually nauseating to the shakee as a dose of salts. But, on the other hand, it is also admitted that a cold plunge may have a tonic effect and that salts is a good eliminating purge to free one's system from certain physical dross. And we claim that at times, being shaken from a rut of personal conceit, to find one's poor little knowledge literally naked in the glare of a veritable ballroom of well-dressed information, may well be very good for the soul-so good indeed that one finds himself inspired to keep out of said rut rather than crawl back.

And we allege that in this day and age of ready communication, ready and progressive information, aggressive and progressive research, the man who doggedly follows a rut has very little excuse. Perhaps he fancies that in the end the rut will lead him somewhere. And perhaps he is right. But it is more apt to lead him to dwindling ability, lessening desert of confidence and trust by those he should best serve, final realization of his own shortcomings, and so oblivion. And so we say, beware of the rut in these days when the road to knowledge, like most of the well-traveled roads of the nation, is paved.

#### TANNIC ACID

Tanned burns is the latest nowadays. And why not? There seems to be a very excellent reason or number of reasons in the words of the late lamented Mr. Post. Primarily tannic acid is an active chemical coagulant. Shock, be it of traumatic, surgical or biochemical origin, would seem to depend upon the active absorption of the split protein molecule before any or everything else. And this being the case, anything which will prevent the absorption of the broken-down molecule with the resultant toxemia will prevent the phenomena of shock and give a fresh lease on life. This, seemingly, tannic acid does when used in the treatment of burns. And one may suppose that it accomplishes this in several ways. Primarily the chemical action would seem to lock the destroyed proteins in an insoluble or very slightly soluble coagulum. Secondarily, being an active astringent, it produces a narrowing of the efferent and afferent blood stream, hence a diminished inflammatory reaction which must of necessity mean a lessened opportunity for absorption.

It has been noted that burns dressed with moist tannic acid 21/2 per cent dressings for the first thirty-six to forty-eight hours show a darkened surface (are tanned) and manifest far less bacterial growth than others not so treated. Yet we may assume that these wounds are as greatly infected as any other routine control. One wonders if then the tanning, coagulating process, does not lock the micro-organism in a restricting net, as it were, and exert a bacteria-static effect at least.

And this tanned surface-means what? To all intents and purposes a protective surface under which nature may manifest her wonderful recupera-

tive forces, of course. And more than this. Under nature's own forces of always seeking to discard the healing covering of "scab" when its purpose is fulfilled, it actually would seem to insure a resulting hyperemia, following the primary astringent-produced ischemia, with all such a hyperemia's healing effects. And if this hyperemia is fostered by radiant heat and small doses of actinic light, healing will be still more quickly accomplished. We expect to see "tanned burns" become all the rage.

Utah News-Frank B. Steele, secretary of the State Association, attended the meeting of the state secretaries A. M. A. at Chicago the past month. While on this trip the doctor interviewed several Chicago men, with a view to gaining their participation on the scientific program of the next state meeting.

We are pleased to announce the following appointments committees of the State Association by President Calderwood:

Council-J. R. Morell, J. C. Landenberger, E. G. Hughes.

Health and Public Instruction - W. Christophersen, E. W. Neher, R. A. Perse, H. Jeidell, S. Paul. Advisory on Hospitals—J. W. Aird, J. W. Hayward,

A. C. Behle. Two to be appointed. Conference Committee for State Industrial Commission—R. Groesbeck, Scott A. Jones. One to be appointed. Committee on Scientific Program—John Z. Brown,

W. N. Pugh, Fuller Bailey, J. U. Giesy.
Committee on Postgraduate Work—J. A. Phipps, E. L.
Skidmore, R. S. Allison, J. J. Galligan.
Professional Welfare and Ethics—S. D. Colonge, D. K.
Allen, A. C. Callister, E. I. Dumke, H. G. Merrill.

Committee on legislative affairs to be appointed.

As the Medical Arts Building which will house upward of a hundred doctors and dentists nears completion, interest in the project grows. Viewed from the outside the building is a credit, and the interior begins to show that it will be no less beautiful. One of the major interests is the auditorium and convention hall, in which it is expected many of the future scientific meetings in the city will be held. Occupancy is expected by January 1.

Quite a number of the local physicians from Utah attended the A. C. S. convention in Montreal.

Minutes of the Salt Lake County Medical Society (M. M. Critchlow, secretary)-Meetings of this society have been held as follows:

October 20—A special meeting of the society was held at the Commercial Club, Salt Lake City, Wednesday, October 20, called to order by Vice-President W. G. Schulte. Forty-nine members and four visitors were

The society was very fortunate in having Dr. Edouard Rist of Laennec Hospital, Paris, address it on "Pitfalls in the Diagnosis of Pulmonary Tuberculosis." He outlined the necessary data for diagnosing pulmonary tubercu-losis, warned about the possible mistakes in the labora-tory, and then proceeded to a discussion of intrapulmo-nary conditions which simulate the symptoms of and are often mistaken for pulmonary tuberculosis. He next out-lined the constitutional disorders which may simulate tuberculosis and finished his discussion by enumerating the conditions of the upper respiratory tract, diseases of which, in his opinion, were most often mistaken for tuberculosis.

His address was a masterly one, and was greatly appreciated by the society.

October 25—A regular meeting was held at the Commercial Club, Salt Lake City. The meeting was called to order by President F. H. Raley. Forty-five members and six visitors were present.

Minutes of the regular meeting held October 11, 1926,

and of the special meeting held October 20, 1926, were read and accepted without correction.

No clinical cases were presented.

The first paper on the scientific program was given by F. A. Goeltz on "Obstruction as a Causative Factor in Renal Pathology." He illustrated his talk with lantern slides and brought out very clearly the conditions resulting from obstruction in the genitourinary tract. This very interesting talk was discussed by W. G. Schulte, E. S. Pomeroy, and John Z. Brown.

The second paper was given by L. L. Daines on "Pernicious Anemia." His paper was devoted mostly to his and that of others on bacillus welchii as a causaand that of others on bachins weichi as a causative factor in the disease and to treatment. His reports as to the results obtained from a high protein diet were very encouraging. Diseussion by F. B. Bailey, G. A. Cochran, G. G. Richards, and L. E. Viko.

November 8-A regular meeting was held at the Commercial Club, Salt Lake City, Monday, November 8, called to order by Ex-President E. D. Hammond. Seventy members and three visitors were present.

Minutes of the previous meeting were read and accepted

without correction.

F. M. McHugh demonstrated an Albino patient and

showed the absence of pigment in the retina.

Vice-President W. G. Schulte took the chair.

The first paper of the scientific program was entitled "Diagnosis of Gall Bladder Diseases," by G. G. Richards. He reviewed three hundred cases of cholecystitis and ninety cases of cholelithiasis. Eighty cases of the above

series have received intravenous injections of tetraiodo-phenolphthalein sodium. His paper was illustrated with lantern slides. He brought out distinctly the advantages of the dye injections in gall bladder diseases.

President F. H. Raley took the chair.

The next paper was given by Ralph T. Richards on the "Surgical Treatment of Gall Bladder Diseases." He discussed the surgical technique for the various gall bladder diseases and anesthetic and preparation of the patient.

These very interesting papers were discussed by J. P. Kerby, Clarke Young, W. N. Pugh, A. A. Lipkis, W. R. Tyndale, and C. E. Barrett.
Communications from F. B. Steele, secretary of the State Medical Association, and Commissioner T. T. Bur-

ton were read.

Sol G. Kahn, chairman of the Committee on Public Health and Legislation, read a resolution pledging the society's co-operation with the City Commission. He moved that it be adopted, seconded by John Z. Brown, discussed by W. R. Tyndale and W. F. Beer, and unani-

mously carried.

J. P. Kerby moved that a committee be appointed to arrange for a banquet to be given by the society in honor of the Salt Lake County Dental Society. Discussed by G. C. Richards, seconded and carried. Fifteen opposing

votes.

The number of deaths reported annually among infants under one year of age is about two millions in India. This, of course, excludes children probably equal in number who are stillborn. From an economic point of view, it is perhaps even more serious than conditions which kill one-fifth of the nation's children within a year of birth act also to a large extent on the four-fifths that survive and tend to make them during the rest of their lives, less fit than they might have been. Colossal ignorance of the masses, social customs, insanitation, insufficiency of medical relief, poverty and economic distress, all contribute not a little to the high mortality among infants.—The Antiseptic (Madras), August, 1926.

Recently the orangs and chimpanzees in the London Zoo were moved from the old-fashioned "green house" type of cages to new monkey houses, provided with ample open ventilation and roofed with special glass which allows the passage of the ultraviolet rays of the sun. One result was fine crops of baby apes from parents theretofore nonproductive.

"Wild gland" rejuvenators please take notice.

## NEVADA STATE MEDICAL ASSOCIATION

W. L. SAMUELS, M. D., Reno. President 

### PRESIDENT'S ADDRESS, 1926 SESSION

By ARTHUR J. HOOD \*

T IS with a keen sense of the honor you have so graciously conferred upon me as president of the Nevada State Medical Association, that in its behalf I bid you a hearty welcome to the twentythird annual meeting. There are no excuses on our part to offer, nor indulgences to beg for the nature of this program. The committee has worked hard to give you an intensive as well as a varied two days' session of interesting subjects. We aspire to the hope that you will find the program both interesting and instructive.

None the less active in their efforts to please you is the Entertainment Committee. It is a matter of tradition that this body has always lived up to its record of full expectancy. Let me assure you all at this session of a cordiality and a hospitality of which there is none more genuine, none more sincere.

Dr. Harvey Cushing in an address this year expressed the thought that a common devotion to science tends to a mutual loyalty. There is no line more imaginary, as respects our calling, than that which exists on the Eastern and Western borders of this state. This loyalty, bound by ties of common interest, nourished by frequent associations, and fostered through courtesy in an official medical journal for three states has resulted in the blotting out of all lines of division.

The medical profession of Nevada still stands upon the frontiers of medical civilization. It is composed for the most part of general practitioners rather than those favored with a specialty. This is not without its advantages. We cannot help but believe that perspective has been widened and that resourceful faculties have been developed by varied

There is a certain romance attached to the general practice of medicine. It is given to its followers to first welcome the startled cry of the new-born, to correct and alleviate the physical wrongs of youth, to render assistance in the trials of maturity, to furnish comfort and solace to advanced age. And when the curtain is drawn across the fitful state of life, the prompter is still most frequently the practicing physician, familiarly known as the Family Doctor. It is with pride that we point to those who have served this apprenticeship of diversity in these, our

<sup>\*</sup>Arthur J. Hood (Elko, Nevada). M. D. University of Michigan, 1903; B. S. Adrian College, 1899. Graduate study: London, 1908. Previous honors: Chief of staff, Elko General Hospital, 1921 to 1923. Present hospital connections: Member of staff, Elko General Hospital. Scientific organizations: Elko County Medical Society, Nevada Medical Association, A. M. A., Pacific Association of Railway Surgeons. Present appointments: County physician, Elko County, Nevada; district surgeon, Southern Pacific Company; division surgeon, Western Pacific Railway. Practice: General since 1904.

ranks, and later, elsewhere, added fame and luster not only to themselves, but to medical science itself.

There are certain problems before the Nevada Medical Association awaiting solution. Many of these can be assigned to those specially designated, and who are fully competent to solve them. One committee, in particular, needs and deserves the fullest co-operation of each and every member. I refer especially to the Judicial Committee and to the acts of the Nevada Legislature. It is needless to say that this should be in accord with a strict honesty of purpose, subject to no variance. There is no time more opportune than the ensuing few weeks to render your valuable assistance to this society in correcting present evils and thwarting potential dangers.

In concluding, a word of appreciation would be offered to the Nevada State Hygienic Laboratory. Its service has been rendered freely and without stint. There are none of us with practices so meager but who have felt the strength of this arm in diagnosis and its power in preventive medicine. It has raised a loftier standard for the profession throughout our state.

#### PROCEEDINGS OF THE TWENTY-THIRD ANNUAL SESSION AT LAUGHTON SPRINGS, SEPTEMBER 24, 1926

The meeting was called to order by the president, Arthur J. Hood of Elko, at 9:40 a. m. The president made his welcoming address, after which the first paper of the scientific program was called for. The program was as follows

J. Edward Harbinson, Woodland, California, Pains and Uric Acid Diathesis." Discussed by C. H. Lehners, E. H. Falconer, P. K. Brown, and C. F. Welty. Discussion closed by Harbinson.

Miley B. Wesson, San Francisco, "Treatment of Malignant Tumors of the Testicle and Scrotum." Discussed by F. Hinman; closed by Wesson.

E. L. Creveling, Reno, being unable to attend the meeting, his paper was read by J. LaRue Robinson, Reno. The title of paper, "Toxic Amblyopia." Discussed by J. A. Fuller; closed by Robinson.

Ernest H. Falconer, San Francisco, had as his subject, "Blood Transfusions in Pernicious Anemia." Discussed by J. E. Harbinson, P. K. Brown, W. F. Cheney, and Emge. Discussion closed by Falconer.

Clain Fanning Gelston, San Francisco, "Certain Acute and Chronic Upper Respiratory Tract Infections in Chil-

dren." Discussed by C. F. Welty, I. S. Egan, J. E. Harbinson, and C. E. Piersall. Discussion closed by Gelston.

Anne B. De Chene, Sparks, Nevada, chairman of the committee on diseases of the eye, read her report, she being unable to be in attendance at the business meeting.

Philip King Brown and Leo Eloesser, San Francisco, "Symposium on Lung Compression and Surgery." Discussed by T. W. Bath, E. L. Gilcreest, and R. O. Schofield. Discussion closed by Brown and Eloesser.

E. L. Gilcreest, San Francisco, "A Study of Fractures in and About the Ankle Joint." Discussed by W. H. Riley, R. A. Bowdle, James P. Warren, L. Eloesser, and G. W. Pierce. Discussion closed by Gilcreest.

W. W. Washburn, San Francisco, "Surgical Lesions of the Abdomen—Some Diagnostic Problems." Discussed by T. W. Bath, L. A. Francisco, "Cilcrett Discussion of the Company of the

T. W. Bath, L. A. Emge, and E. L. Gilcreest. Discussion closed by Washburn.

Alexius M. Forster of Colorado Springs, Colorado, being unable to attend, Charles E. Savier, Colorado Springs, was given his place on the program and read a paper on "Heliotherapy." Discussed by J. F. Percy, E. L. Gilcreest, E. H. Falconer, L. Eloesser, and C. E. Piersall. Discussion closed by Savier.

W. Edward Chamberlain, San Francisco, appeared for

Howard E. Ruggles, who was unable to attend, and read a paper entitled, "Usefulness of Small Doses of X-ray." Discussed by C. E. Piersall and L. Eloesser. Discussion closed by Chamberlain.

This completed the scientific program for the day, and the meeting was adjourned until 9 o'clock a. m., September, 25, 1926.

#### September 25, 1926

Meeting called to order at 10:15 o'clock a. m. by A. J. Hood, president. The scientific program was continued as follows:

James T. Watkins, San Francisco, "The Hip-Bone Tumors and Dislocations." Discussion by R. A. Bowdle, T. O. Burger, and E. L. Gilcreest. Discussion closed by

George Warren Pierce, San Francisco, "Advances in Plastic Surgery." Discussion by T. O. Burger, L. Eloesser, W. W. Washburn, E. L. Gilcreest, and C. E. Savier. Discussion closed by Pierce.

Discussion closed by Pierce.
Ludwig A. Emge and H. Lisser, San Francisco, read their papers as a symposium. Emge's was entitled, "The Menopause and Its Treatment." Lisser's was entitled, "The Influence of the Thyroid, Pituitary and Adrenal Glands on the Functions of the Ovary." Illustrated. These papers were discussed by J. F. Percy, E. H. Falconer, J. E. Harbinson, E. L. Gilcreest, S. K. Morrison, J. A. Fuller, Horace J. Brown, and W. F. Cheney. Discussion closed by Emge and Lisser.

J. A. Fuller, Horace J. Brown, and W. F. Cheney. Discussion closed by Emge and Lisser.

The paper of Henry Albert of Reno entitled, "Hay Fever in Nevada," was read by title, Albert being absent. James F. Percy, Los Angeles, "The Cautery Treatment of Carcinoma Above the Clavicle." Discussion by W. W. Washburn and E. L. Gilcreest. Discussion closed by Percy.

Howard C. Naffziger, San Francisco, "The Treatment of Spinal Cord Injuries." Discussion by L. Eloesser, M. B. Wesson, J. F. Percy, and S. M. Sproat. Discussion closed by Naffziger.

Owing to the lateness of the hour, Frank Hinman, San Francisco, announced that he would not read his paper, but would publish it instead.

#### **Business Meeting**

On motion of S. K. Morrison, seconded by D. A. Turner, the minutes of the last meeting were approved without being read.

Reports of committeemen were then called for, but as none of the committeemen were present no reports were had. Piersall also being absent, his report was not read.

D. A. Turner nominated Horace J. Brown as delegate to the American Medical Association, C. E. Piersall as alternate, seconded by R. A. Bowdle. Moved, seconded and carried, and Brown and Piersall duly elected.

The election of officers being next in order of business, the president called for nominations for president. R. A. Bowdle nominated W. L. Samuels, seconded by D. A. Turner. There being no further nominations, it was moved and seconded that the faculty unanimously ballot for Samuels. Carried.

S. K. Morrison nominated R. R. Craig for first vicepresident, seconded by R. A. Bowdle. Same procedure as before and Craig duly elected.

T. W. Bath nominated R. H. Riley for second vicepresident, seconded by R. A. Bowdle. Same procedure as before and Riley duly elected. R. A. Bowdle nominated Horace J. Brown for secretary-treasurer, seconded by D. A. Turner. Same procedure as before and Brown duly elected.

R. A. Bowdle nominated Turner for trustee for two ears, seconded by R. A. Richardson. Same procedure as before and Turner duly elected.

D. A. Turner nominated S. K. Morrison for trustee for one year, seconded by R. A. Richardson. Same procedure as before and Morrison duly elected.

In the matter of the time and place of holding the

next medical meeting it was unanimously decided to leave the matter to the incoming officers.

A communication was read from the American Medical Association concerning the federal Lye Bill, the Shep-pard-Towner Law, the Narcotic Law, and the Chiropractic Bill. Moved by S. K. Morrison, seconded by D. A. Turner, that this communication be placed at the hands of the Judiciary Committee and their action accepted as the will of the Association.

D. A. Turner moved that the Association favor and work for a federal hospital to be located in Reno, seconded by R. A. Bowdle. Carried.

T. W. Bath moved that the secretary write to each one of the essayists thanking them for their participation in the program and, also, that all those who are not now honorary members of this Association be allowed as such; seconded by D. A. Turner and carried.

T. W. Bath moved that the Association pledge a donation of \$50 to the Florida sufferers, the donation to be raised by popular subscription among our members; seconded by J. T. Rees. Carried.

The following contributed to this fund: Richardson,

The following contributed to this fund: Richardson, Craig, Riley, Bowdle, Bath, Rees, Turner, A. J. Hood, Roantree, Secor, and Brown.

The chairman on necrology being absent, it was moved by R. A. Bowdle, seconded by R. H. Richardson, that the committee be instructed to prepare resolutions of respect and memorial for J. E. Pickard and A. P. Lewis, both of whom have died during the year.

There being no further business to come before the Association, the meeting was adjourned sine die at 5:25 p. m.

Prevention of Rickets in Premature Infants-Henry J. Gerstenberger and John D. Nourse, Cleveland (Journal A. M. A.), relate their experience with attempts to pre-vent the occurrence of rickets in premature infants by vent the occurrence of rickets in premature infants by feeding them with S. M. A. mixtures. Seventeen premature infants were treated. The most common mixtures used were the following: (a) Double Strength S. M. A. (or Concentrated Liquid S. M. A.), 2 parts; boiled water, 1 part, and boiled skim milk, 1 part. This mixture has an approximate composition of: protein, 2.1 per cent; fat, 3.6 per cent; lactose, 8.6 per cent, and ash, .44 per cent. The cod liver oil content on the average is 3.5 cc. per liter. (b) Protein S. M. A., which is an acid milk (lactic and citric), having an approximate analysis of: protein. liter. (b) Protein S. M. A., which is an acid milk (lactic and citric), having an approximate analysis of: protein, 3.5 per cent; fat, 2.2 per cent; lactose, 2.8 per cent; ash, 0.6 per cent, and acidity, ph 4.6. The cod liver oil content on the average is 2.2 cc. per liter. The citric acid is put in the milk in the form of lemon juice, 20 cc. to the liter, and the lactic acid is produced by bacterial fermentation. It is evident from the results obtained by the authors that rickets can be prevented and cured in premature infants. The amount of cod liver oil required is mature infants. The amount of cod liver oil required is small, as 3.5 cc. per liter of S. M. A. or S. M. A. skim milk mixtures prevented rickets in every case, and 2.2 cc. of cod liver oil per liter of Protein S. M. A. was effective in five out of seven cases. The two that developed rickets on this combination lost it on the same mixture even though they continued to gain in weight, but at a somewhat slower speed. The average daily intake of cod liver oil for the group was 1.76 cc. It was observed that the daily intake of 8 cc. of cod liver oil for one week produced healing rickets in seven weeks and a completely calcified bone in nine, showing again the small amount of cod liver oil required to initiate and for some time to keep in action the calcification process. In preventing rickets in premature infants, cod liver oil should be administered as soon as food is consumed. Excessively rapid and great gain in weight should not be encouraged. The food should contain a higher mineral and protein content than does human milk, and it is suggested that if human milk is used it be supplemented with boiled skim milk.

As a people, we Americans are extremists. Everything we do is exalted to the nth power. Every time we let loose the wonderful energy, enthusiasm, and vitality of our relatively young nation, we indulge in an emotional episode We orate, investigate, and legislate. We run the gamut of publicity; we exhibit and prohibit; we announce and denounce; we revel in velocity and strenuosity; as a nation we live on excitement.—Nation's Health.

To the longer life and the worse, the shorter life, if it is better, ought by all means to be preferred.—Epictetus.

#### READERS' FORUM

San Francisco, November 12, 1926.

Dear Editor—In the last issue of the Journal, I see that the editorial as well as the "Month with the Editor" are not in favor with the public health insurance system in England. You are quoting also that a group of English physicians formed an alliance against the whole system. Yet to my information it came that the "Royal Commission of England" had a panel system at a public trial at the end of last year or beginning of this year, and as far as I know there was not a man or a group of men who came out publicly against the system.

Also all the notes of the last issue are having an out-

Also all the notes of the last issue are having an outlook purely from a physician's standpoint of view. I believe if we physicians are to be the keepers of the health of the public, we have to have an outlook also from the public standpoint.

We must not forget that about half of our adult population is suffering from venereal diseases alone, and that about 75 per cent of our women are operated for the correction of pathology of the above-mentioned disease.

This question of public health insurance is to be studied—and studied again.

We must not forget that the physicians in England were never asked whether they would approve the panel system or not. They just simply passed the law and the physicians had to make the best of it.

Perhaps it would be good for us to benefit by other peoples experiences and look into the matter carefully. Trusting and hoping that none will be offended by these few remarks, I am sincerely always at the service of the Journal.

B. S. HERMAN, M.D.

San Diego, November 12, 1926.

Dear Editor—You have been kind enough to make mention of our lectures in a previous issue of CALIFORNIA AND WESTERN MEDICINE, but it is now necessary that we make some change, as the schedule has changed. Dr. William McKim Marriott, dean of Washington University Medical School, will give the lectures in San Diego during the month of January, instead of Dr. Philip Shaffer, who is it.

Doctor Marriott's subjects are going to include diabetes, acidosis, alkalosis, toxemia of pregnancy, the chemical changes in the body during intestinal obstruction and rational therapy for the same, the respiratory exchange and certain aspects of diseases of the heart. The subjects are all going to be built up upon the phenomena of the chemical changes in the body in these various clinical states.

I am asking that you give this publicity, for the reason that Doctor Marriott is so well known and comes out to this section of the country so seldom that it is probable that a great many men from Los Angeles and San Francisco would like to have word in advance about the lectures. All out-of-town doctors are invited to come to San Diego and attend the lectures. If you would ask your assistant editor to give this some prominent place in your next edition of the Journal, I would appreciate it very much.

DAVID R. HIGBEE, M. D.

San Diego, November 8, 1926.

Dear Doctor Musgrave—Your article in the A. M. A. Bulletin, "Saving the Expectant Mother," I trust will meet with the hearty approval and nation-wide co-operation that it so manifestly deserves. This all-important measure is presented so succinctly that we would hope to enlist your good offices in another chapter on this same subject. I refer to the general health, vigor and preservation of the mothers and would-be mothers of our future progeny. Any impairment here, it is needless to say, spells lack of physical, mental and moral stamina, and this among those upon whom we must largely depend for our future national supremacy.

To bring this home to our profession, first we must consider that less than one in fifty (yes, much less) obstet-

rical cases are attended by the trained specialist (the obstetrician). The same might be said of gynecological cases (the gynecologist), which means that the other fortynine cases are taken over by practitioners, pseudogynecologists, who do not take the time (even if competent) necessary for the essential pre- and after-care of the many, so ruthlessly forced into surgery. Again, how about our Class A hospitals? In many the department of gynecology is entirely ignored (no attending gynecologists), though the often faultily diagnosed cases that are rail-roaded through surgery are not few, but many. Unfortunately the interns get their clinical training through this type of surgery, and thus starts an endless chain of indifferent if not reprehensible gynecological surgery.

"It isn't enough for doctors to condemn the faulty rendering of a needed service. Through our county medical societies we should initiate and promote a sane, constructive program, to be executed under our own leadership," which should embrace publicity and educational propaganda as seemeth wise, etc.

I know you will feel the same as I do about this matter and will help bring about the much needed reform.

Nothing in the above should be construed as opposing legitimate gynecological surgery. When properly diagnosed—with due regard for remote as well as immediate results—gynecological surgery is, of course, as necessary as any other and should be done.

H. P. NEWMAN, M. D.

# CALIFORNIA BOARD OF MEDICAL EXAMINERS

By C. B. PINKHAM, Secretary

At the annual meeting of the Board of Medical Examiners, dates of meetings and oral examinations for 1927 were established, as follows: January 31 to February 3, Los Angeles; May 16 to May 19 (written examinations only), Los Angeles; June 27 to June 30, San Francisco; October 17 to October 20, Sacramento. Oral examinations (held simultaneously in San Francisco and Los Angeles): March 9, June 8, September 7, and December 7.

March 9, June 8, September 7, and December 7.

Another alleged victim of the beauty specialist was claimed when Mrs. Sally Lytton of Los Angeles recently died following the application of a Los Angeles manufactured face peel, which according to reports was composed of a large percentage of corrosive sublimate, although the paper carton containing the bottle of "face bleach" made no mention that its contents were poisonous, and the preparation was on sale at various representative drug stores.

James A. Belyea, a well-known Glendale physician and surgeon, recently arrested on a charge of cruelty to animals based on the alleged mistreatment of nineteen young goats on the Glahn Goat Farm, was ordered held over today in a court pending the return of a material witness for the state, according to the Glendale Press of October 27, 1926.

The license of Herbert E. Bogue, M. D., revoked by the Board of Medical Examiners March 11, 1926, on the basis of his narcotic activities, was restored October 20, 1926, after the board considered not only the age of the applicant, but also a petition signed by practically all the doctors of Sawtelle, Ocean Park, etc. The board placed Doctor Bogue on five years' probation, during which time he shall not apply for nor receive an alcohol permit or a federal narcotic permit.

H. H. Calkins, a recent arrival in Long Beach, who is reported to drive an automobile with an Indiana registration number, was recently arrested on a charge of violation of the Medical Practice Act.

Officers of the Board of Medical Examiners re-elected at the annual meeting held in Sacramento, October 19, are as follows: President, Percy T. Phillips, M.D.; vicepresident, Harry V. Brown, M.D.; secretary-treasurer, Charles B. Pinkham, M.D.

Associated Press dispatch dated Sacramento, November 5, relates the appointment of C. F. Redmond, D. C., Los Angeles, and Claude L. Houck, D. C., of San Francisco as members of the State Board of Chiropractic Ex-

aminers to succeed Tait and McFarlane, whose terms have expired. J. K. Gilkerson, D. C., of Glendale is also reported to have resigned as a member of said board.

S. C. Drollinger recently was sentenced to pay a fine of \$500 or serve one hundred days in the city jail of Los Angeles on a charge of violation of the Medical Practice Act, said sentence being thereupon suspended for a period of two years on condition that the defendant does not violate the Medical Practice Act during the term of his probation. According to a report of our special agent, Drollinger related that he did not know whether he was registered in California or not, stating, however, that he was licensed in Illinois, Michigan, and Ohio.

Florida is still having trouble with diploma mill activities and issuance of fraudulent licenses to practice in that state, according to recent reports which relate the arrest of Joseph M. De Gaetani on a charge of practicing on a license alleged to have been "purchased from Dr. George A. Muench, formerly secretary of the Eclectic Board of Medical Examiners, who also was recently arrested as the alleged head of the diploma mill."

According to the Wilmington, California, Journal of October 15, 1926, A. C. Foy, a Long Beach chiropractor, was arrested following an automobile collision. "Records at the police station revealed the fact that Mr. Foy was driving his car when in an intoxicated condition. . . . He was brought to the police station, a charge placed against him of violation of the California Vehicle Act and detailed until he was sobered up sufficiently to care for himself."

The license of David (Oscar) Franklin to practice as a physician and surgeon in the state of California was revoked by the Board of Medical Examiners, October 19, 1926, it being alleged that he was practicing under the credentials of David Franklin, who died in New York State in 1903. (Previous mention in CALIFORNIA AND WESTERN MEDICINE, "News Items," September and November, 1926.)

W. Roy Graham, Alhambra chiropractor, was sentenced to from 17 to 170 years in San Quentin by Superior Judge Burnell yesterday. Graham was convicted on seventeen counts of grand larceny and embezzlement. . . . (Previous mention made in California and Western Medicine of February, June and October, 1926.)

According to recent press dispatches, F. F. Gundrum, M. D., and Robert Peers, M. D., have been reappointed members of the State Board of Health.

The license of Frank C. Hart, M.D., to practice as a physician and surgeon in California was revoked by the Board of Medical Examiners, October 19, 1926, following a formal hearing based on charges of conviction of a crime involving moral turpitude, the record showing that Doctor Hart was convicted of violation of the Mann Act in Portland, Oregon, and the conviction was recently confirmed by the United States Supreme Court.

The license of Edwin V. Heaton to practice as a physician and surgeon in California was revoked by the Board of Medical Examiners, October 19, 1926, based upon his conviction of violation of the Federal Statutes re narcotics.

Charged with driving an automobile while intoxicated, after his car had collided with a car driven by N. C. Toll, 1401 West Elm Street, Stockton, Dr. L. D. Hines of Lodi was released from the Sacramento county jail Saturday night after posting a \$500 bond insuring his appearance against the charges (Sacramento Bee, October 18, 1926). The records of the Board of Medical Examiners do not show the name of Dr. L. D. Hines.

The Third District Court of Appeal has denied a rehearing to T. Wah Hing, local Chinese herb doctor, who was convicted in the Sacramento County Superior Court of practicing medicine without a license. The Appellate Court recently upheld Hing's conviction.—Sacramento Bee, October 11, 1926.

The license of Lewis T. A. Hotten (formerly Hottendorf) to practice as a physician and surgeon in California was revoked by the Board of Medical Examiners, October 19, 1926, based upon his conviction of violation of the Harrison Narcotic Act and followed by his in-

carceration in the federal penitentiary at Leavenworth, Kansas.

The Board of Medical Examiners on October 19, 1926, found Harrison B. Hulse, M. D., guilty, based on the record of his conviction of violation of the State Poison Law re Narcotics and placed him on probation for five years, during which time he shall not ask for nor receive a Federal Alcohol or Narcotic Permit.

According to the Long Beach Sun of October 14, 1926, H. A. Kettle, a chiropractor, was recently reported to have been found guilty and fined \$25 for failure to report a contagious disease.

Dr. William I. Kinsley, charged with having performed an illegal operation on a young woman, is in the county jail in default of \$5000 bail, that amount of bond having been fixed yesterday by Justice Griffin when Kinsley was arraigned on the felony charge. Kinsley had obtained his freedom a few hours previously by making bond of \$1500 for his appearance to answer another charge, that of improper conduct with a young woman. . . . The past few months have been hectic ones for the man who at one time was a candidate for the Mayor's chair in this city and who some months ago announced himself as an aspirant for the post of California's Governor. . . .—San Diego Union, October 22, 1926.

Abraham W. Lair, self-styled doctor, recently paid a \$200 fine in Municipal Judge Richardson's Court in Los Angeles, based on a charge of practicing medicine without a license. It is related that, although he denied practicing surgery, he admitted to the court that he had in his possession a large quantity of surgical instruments and is alleged to have stated that "he understood that the State Medical Board would allow him to practice in California anyway since he could not qualify for a license," further relating that he had practiced in Alabama, Illinois, Mississippi, Oklahoma, and Texas, although he was never licensed anywhere.

The application of M. T. Larkin for probation was denied recently in San Diego, whereupon said defendant was sentenced to pay a fine of \$100 or serve thirty days in the county jail. (Previous mention in "News Items" of June and December, 1925; July, September, and November, 1926.)

H. A. McClelland, Turlock chiropractor, was found not guilty of issuing a worthless check of \$10 to Carl Salber of Modesto by a jury in Superior Judge L. W. Fulkerth's court last night. The jury returned a verdict that McClelland was not guilty of passing the check at the time by reason of his insanity. McClelland was sent to Letterman General Hospital following his arrest and held under observation. He is said to have fully recovered his mentality.—San Francisco Examiner, October 31, 1926.

According to a press dispatch dated Fresno, November 5, G. Carl H. McPheeters, M. D., prominent Fresno physician, faces a charge of sending objectionable matter through the mail, as a result of his indictment by the United States Grand Jury in session here yesterday and today. Details of the indictment were kept secret (San Francisco Examiner, November 6, 1926). Previously mentioned in "News Items," September and October, 1926.

A recent attempt was made by an individual posing as Alma Stevens Pennington, M. D., a reputable physician and surgeon in San Francisco, to obtain a Michigan license by fraud. Thorough investigation discloses that the photograph of the individual seeking registration in Michigan is said to be that of Agnes Martin, a nurse formerly connected with the State Hospital near Rockville, Illinois, which individual is alleged to have tried the same scheme on the Illinois authorities in 1922.

Howard L. Moffat, M. D., of Los Angeles was found guilty by the Board of Medical Examiners, October 19, 1926, in connection with a charge of violation of the State Poison Act re Narcotics and penalty was deferred until the next regular meeting in Los Angeles. (Previous mention in California and Western Medicine, "News Items," August, September, and November, 1926.)

Dr. B. B. Montgomery, 69-year-old physician charged with violation of the State Poison Act, waived preliminary hearing yesterday before Municipal Judge Ballard

and declared he would plead guilty in Superior Court. Bail was set at \$2500.—Illustrated Daily News, Los Angeles, October 26, 1926.

The petition of Arthur Barris Nelson for the restoration of his license revoked July 13, 1926, was denied at the annual meeting of the Board of Medical Examiners held in Sacramento, October 20, 1926.

Dr. A. M. Pond, who had his hearing in Judge Crane's court last Tuesday afternoon, was held to the Superior Court. His bond was fixed at \$200. Several witnesses testified that Pond was very much under the influence of liquor and was unable to guide his car properly. . . — Upland News, October 29, 1926.

Pleading guilty on four counts of selling liquor, Poo On, Modesto Chinese herbist, was fined \$300 and sentenced to eighteen months in jail by Superior Judge J. C. Needham Friday morning. The fine was paid, but the jail sentence was suspended for sixty days on condition that Poo On leave the United States and go to China. This he agreed to do. Poo On still has three charges against him. Two of these are for practicing medicine without a license, while the other is for having a concealed weapon while supposedly an alien . . . (Modesto News Herald, October 16, 1926). According to the Modesto Herald of December 30, 1919, Poo On and B. T. Gum, Chinese herb doctors of Modesto, were arrested for traffic in narcotics. In 1920 he is reported to have been convicted of violation of the Medical Practice Act, the case being recorded in Volume 33, California Appellate Decisions, page 110.

J. Otway Puryear, whose application for a license to practice in California was refused in 1924 based upon his reported conviction in Indiana in 1921 and incarceration at Leavenworth, was reported to have recently pleaded guilty in Los Angeles on a charge of violation of the Medical Practice Act and paid a fine of \$200. It is further reported that Doctor Puryear pleaded guilty to a charge of violation of the State Poison Act.

Embezzlement charges against Dr. William J. Ryan were dismissed by Judge Stephen G. Long in Municipal Court yesterday after a money settlement had been made by the defendant with relatives of Mrs. Adelaide McLaren, who is under prison sentence for killing her hushand Forest McLaren. . . (Long Beach Sun, October 12, 1926). Previous mention, "News Items," November, 1926.

Newton B. Siler, M. D., was found guilty by the Board of Medical Examiners October 19, 1926, based on the record of his violation of the State Poison Law re Narcotics, and the penalty was deferred until the next regular meeting of the Board in Los Angeles.

C. R. Spencer, alleged to have been posing as a physician for some time, was reported to have been scheduled to appear before Municipal Judge Ballard of Los Angeles for preliminary examination on a charge of performing an illegal operation. (Previous mention, "News Items." June and November. 1926.)

Items," June and November, 1926.)
"Dr." E. L. Swick was bound over to the Superior Court of San Luis Obispo on charges of violation of the Medical Practice Act, according to the Atascadero News of October 29, 1926.

The license of O. E. Werner, M. D., to practice as a physician and surgeon in the state of California was revoked by the Board of Medical Examiners October 19, 1926, following his conviction and incarceration in Wisconsin.

To draw an exact line between official public health work and the private practice of medicine is likely to prove a more delicate and difficult task which can be accomplished only by the exercise of common sense and a spirit of fair dealing with the rights, duties and prerogatives of those concerned, including the general public.—Matthias Nicoll, Jr., New York State J. Med.

President Calvin Coolidge, in Bruce Barton's interview, indorses marriage unequivocally. What other visionary project will this reckless radical advocate next?—Emporia Gazette.

## MEDICAL AND HEALTH **AGENCY NEWS**



Lucy M. T. Wanzer was the guest of honor at a dinner given by the Women Physicians' Club of San Francisco at the Clift Hotel, November 2. The occasion was the celebration of the fiftieth anniversary of Doctor Wanzer in the practice of medicine. Ninety women physicians from San Francisco and neighboring cities were present. Louise B. Deal, president of the club, introduced Emma Sutro Merritt, who acted as toastmistress. Doctor Merritt told of the early struggles of Doctor Wanzer, who was not only self-supporting from an early age, but was the mainstay of a large family. While acting as breadwinner in the capacity of seamstress, postmistress, and school teacher, she went on with her education and steadfastly adhered to her purpose of fitting herself to study medicine. She was finally admitted to Toland Medical School, and after many vicissitudes was awarded her degree on November 1, 1876. She was the first woman physician to graduate from the University of California. The difficulties encountered in establishing a practice and securing hospital accommodations were overcome by a combination of hard work, strict attention to business, and rigid adherence to the ideals of her profession.

Doctor Wanzer's part in the founding and development of the Children's Hospital was referred to by Doctor Merritt, and several of the other speakers. Margaret Mahoney read a newspaper account of the graduating exercises of the Medical School as recorded by the Alta California of November 2, 1876, in which reference was made to the surprising fact that there was one "lady" among the graduates.

Expressions of congratulation and appreciation were conveyed to Doctor Wanzer by Emma K. Willits, representing the Children's Hospital, Mariana Bertola repre-

senting the State Federation of Women's Clubs, Alice Maxwell representing the University of California, Mary Layman representing Stanford University, and Kate Van

Edna Barney, secretary, read many letters and telegrams of congratulation, among which were one from Grace Kimball, president of the National Women's Medical Association, Emmet Rixford representing the San Fran-cisco County Medical Society, William E. Musgrave, Lucy Sprague, and numerous others.

California Northern District Medical Society (John L. Lawson, secretary)—Report of the forty-first semi-annual meeting of the California Northern District Medical Society held in Woodland, California, October 26, 1926.

The morning session was devoted to clinics in the various departments of the Woodland Clinic in which all staff members participated.

Lunch was served at the Yolo Fliers Club, with the staff of the Woodland Clinic acting as hosts. About sixty places were occupied.

The afternoon session was called to order by J. O. Ciapella of Chico, president. It was well attended, there being between sixty-five and seventy members and guests present.

The scientific program was opened by Dr. Stanley Stillan of San Francisco, who spoke informally on "Expeman of San Francisco, who spoke informally on "Experiences with the Female Breast," discussing chronic mastitis, carcinoma of the breast, adenomata, and other allied conditions. Discussion was opened by Fred R. Fairchild and continued by J. B. Harris, after which a general informal discussion was held.

The second paper was read by Walter M. Dickie, who spoke upon "Preventable Diseases from the Standpoint of the State Board of Health." This paper was discussed by H. D. Lawhead, Mrs. Rozzie Carrow, Smith McMullin, W. P. Lucas, Rooney, Poole, Bates, Beattie, and Gundrum.

F. H. Rodenbaugh, who was to have presented a paper on "Injuries and Anomalies of the Lumbar Spine," was unable to be present.

The final paper was given by William Palmer Lucas, who presented several case reports of chronic nutritional diseases in infants and children in a very able manner. Discussion was opened by E. S. Babcock and continued by J. Edward Harbinson.

Following the reading of these papers the annual business meeting was held, and the following physicians were elected to membership: Charlies I. Titus, Sacramento; Frederick W. Dider, Wheatland; C. E. Reed, Redding.

The following officers were unanimously elected: John D. Lawson, Woodland, president; Dan Hazen Moulton, Chico, vice-president; Albert K. Dunlap, Sacramento, secretary; Walter E. Bates, Davis, treasurer. Drs. J. B. Harris, R. A. Peers, D. H. Moulton, Dewey R. Powell, and E. Eric Larson, Board of Censors.

A committee consisting of H. D. Lawhead, W. E. Bates, and J. B. Harris was appointed to draft a resolution of respect for the passing of two of the charter members, viz., Drs. J. H. Parkinson and O. Stansbury.

A rising vote of thanks was tendered to the Woodland Clinic and the officers of the society for the excellent meeting.

Tribute to the Memory of Dr. O. Stansbury-If we could know what death and its consequences are, pos-sibly the parting from our beloved comrades would not be embittered by so much sadness.

But since we cannot know beyond the grave, we bow meekly to the dispensation of a just and all-wise Provi-dence and find our sorrow over the death of our esteemed member, Dr. O. Stansbury, sweetened by the memory of his unpretentious, yet noble life.

We remember his personal sacrifices-his lifelong devotion, first to his family; next to the prevention and relief of the suffering of his multitudes of grateful patients whom he loved to serve and who loved his service.

Throughout his fifty-three years of active practice, we know his ethical support not only of his chosen profes-

sion-to which he was always faithful-but of church, of

school, and of every movement which meant the better-

ment of his profession and his community.

What a heritage thus graciously bestowed! What greater monument could human desire than the record of a life work so well done?

To Doctor Stansbury's family we tender the affectionate sympathy of every member of our society, to whom he was always a genial friend and by whom he is affectionately remembered.

(Signed) H. D. LAWHEAD W. E. BATES I. B. HARRIS Committee of California Northern District Medical Society.

In Appreciation of Dr. James H. Parkinson-Again the cold hand of death has taken from us an esteemed and very active member—Dr. James H. Parkinson of Sac-ramento. Doctor Parkinson's death is an irreparable loss not only to our district society, but to general medicine and to all the medical activities of the state, for he was and to an time medical activities of the state, for he was a conspicuous figure both officially and in general practice. He stood among our best as practitioner and consultant, and had filled most creditably the important offices in the various medical organizations of the state. And yet he never sought personal aggrandizement, but stood for the highest interests of his profession regardless of consequences to himself.

He was a high type Christian gentleman, and in his relation to all moral, social, and municipal affairs of his community, as well as to medicine, he was zealous for the right as he saw it, almost to the point of austerity. Though Doctor Parkinson is gone we remember and

cherish his counsels, his example, and his influence for good, and extend to his family our affectionate sympathy. (Signed) H. D. LAWHEAD W. E. BATES

J. B. HARRIS Committee of California Northern District Medical Society.



Doctor Rist, who was recently a guest of the American Tuberculosis Association and a speaker at their annual meeting, is well known in the United States, as the following citation which accompanied his Distinguished Service Medal will attest:

Edouard Rist, Major Medical Service, French Army, D. S. M. (Army). As an eminent scientist, by his untir-ing zeal, devotion and energy he promoted the efficient

treatment of the American sick and wounded. In this important research work he co-operated with the Medical Service of the American Expeditionary Forces in the fullest measure of devotion to duty. To him is due much credit for the arresting of the ravages of disease and injuries among our forces. His valuable research efforts in the domain of preventive medicine and wound bacteriology resulted in the saving of many lives among our wounded soldiers. He has rendered services of signal worth.

He is now chief physician of the Laennac Hospital, tuberculosis department, and Leon-Bourgeois Dispensary in Paris, where he has developed a center for tuberculosis study and research. He is a product of the University School of Medicine at the Pasteur Institute, subsequently occupying an important position in Egypt.

This is his fourth visit to the United States. In 1919 he was invited to accept the chair of medicine at the University of Michigan, but declined. In 1917 he occu-pied a desk in Surgeon-General Gorgas' office at Washington as a member of the French scientific mission to America.

Doctor Rist came to California as the guest of the California Tuberculosis Association. Special meetings were held for him in Oakland and San Francisco and Los Angeles.

Some 125 members of the Academy of Medicine attended a reception and banquet given by the organization at the Palace Hotel on October 22, in Doctor Rist's honor.

President Ophuls of the academy introduced the speaker as one of the most distinguished authorities on tuberculosis in the world.

Doctor Rist is not only a great physician, but a delightful and charming guest.

In last month's Medical and Health Agency News we said that "most of the better class sanitariums for tuber-culosis patients are listed in our advertising space, to their advantage, as well as advantage to doctors in other states who are constantly referring patients to institutions in California." This is true, but through a clerical error the Canyon Sanatorium at Redwood City was omitted from the sanitariums so listed, although, as our readers know, they have for a long time carried a very attractive full-page announcement in every issue of our magazine, as they are continuing to do.

The Park Sanitarium (San Francisco), an accredited institution for the care of the mentally ill, has improved their facilities by the addition of a hydropathic annex and a commodious roof-garden and solarium.

Some of the points made by Boris Herman in his recent talk before the Public Health Section of the Commonwealth Club were that patients were adopting all kinds of means to reduce hospital and medical costs to the minimum, or to in some way assure themselves that they would be cared for in case of illness, without impossible outlay. He mentioned clinics, lodges, hospital asso-ciations, insurance, quack remedies, and beating their bills. He discussed experience with state insurance in Germany, England and Holland, where he said that a new system was about to be instituted, available only to people of moderate or small incomes, the patient to select his own doctor. An idea he expressed was that something like this was bound to come, and that doctors and medical people should be on the ground floor, ready to see that it was carried out as it should be. He also brought out the value to a community from the public health standpoint in having medical attention available for those who need it, many patients hesitating to call in a doctor when "a stitch in time would save nine."

During the fiscal year July 1, 1924, to June 30, 1925, 9765 patients were accepted for treatment at the University of California hospital clinic. During the year 1925 to 1926 this total increased to 10,166. The total number making application for treatment was 10,842 and 12,409 for the two years, respectively.

This raises the total number of patients who have been

treated since the founding of the clinic, thirteen years ago, to approximately 140,000 .- University of California Clip Sheet

Volume I, Number 1, "Hospital News," published by the Santa Barbara Cottage Hospital, contains much well-presented information of value to all persons inter-

ested in hospital and medical work.

Among the several brief articles and carefully culled news items is one outlining a series of popular health lectures to be given at the hospital by members of the staff. The titles of the lectures include such subjects as: X-ray and Its Uses; Radium and Its Uses; The Control of Cancer; Dangers of Earache; Why Have a Tonsil Operation? "Colds"; Styles in Diet; Cancer of the Stomach; Plumbing of the Intestinal Tract and Its Harm; A Normal Gastrointestinal Tract; Ulcers of the Stomach; Our Eyes and What We Should Know. About Them; Troubles and Their Causes; Treatment of Heart Troubles; High Blood Pressure and Hard Arteries; Symptoms of Kidney Diseases; Dangers of Ruptures; Value of Periodic Medical Examinations; Vacations and the Doctor; First Aid Everyone Should Know.

Elliott P. Joslin of Boston addressed the San Diego County Medical Society November 18, at Casa de Manana, La Jolla. Subject: "The Outlook for the Diabetic." Courtesy of the Scripps Metabolic Clinic, La Jolla.

St. Joseph's Hospital, San Francisco, considered "Cancer Progress" at the staff meeting held November 10. Alson R. Kilgore opened with "Earliest Signs of Cancer,"

"Since cancer is apparently an accident of cell growth and reproduction by which one cell or group of cells are lost to control and reproduce a mass of similar wild cells, the earliest sign of cancer is a "lump"—a lump of wild cells. If this lump is on the surface of the body, where it can be seen or felt early, the chances of its discovery in time for cure by radical removal or destruction are excellent; therefore, the lump in the breast (usually painless at first), the wart (lump) on the lip, the hard ulcer (lump) on the tongue or in the mouth—all are signs of possible trouble which everyone should know.

"When the lump is in an internal organ, it cannot be seen or felt early and other signs must be looked for. In the uterus, abrasion of the surface of the growth and consequent bleeding or foul discharge are the commonest early symptoms. Similarly, in the bowel, bleeding may be the first indication, though the irritation of the presence of a cancerous lump may cause obstinate constipation or

diarrhea.

"If we may form a judgment from the trend of knowledge acquired by clinical observation and research during the past generation or more, cancer is apparently not a germ disease, i. e., the accident of a cell breaking loose from control in its relation with the rest of the body is not caused by an infecting organism. If this be true, no serum for the cure of cancer may be expected. It would be far better if the hope of a serum cure could be abandoned by the community, at least until our knowledge radically changes, because every newly announced serum means delay in securing adequate surgical treatment for w. E. Chamberlain spoke on "X-ray and Radium in

Uterine Carcinoma," showing a favorable outlook with a proper technique. Ernst Gehrtes demonstrated "Rectal Cancer Cases" with specimens and patients. L. Crow and

Cancer Cases" with specimens and patients. L. Crow and J. M. Stowell stressed radiation in cancers.

Case reports were presented by M. B. Ryer, William Quinn, G. E. Chapman, and Samuel Barmak. Sister Agnes and Dr. Roy Parkinson discussed "Nurses' Bedside Clinics" and C. E. French "Preoperative Skin Antisepsis."

On December 8 Emmet Rixford will speak on "A Trip to some European Clinics," based on his last tour of

surgical advances.

At the last quarterly banquet and meeting of the Mount Zion Hospital staff held at the Concordia Club,

a short discussion on x-ray therapy was presented by Lloyd Bryan. Some of the points brought out in this

Treatment by x-ray is most successful with benign lesions. Fibroids respond very well and should be given roentgen therapy, unless they are extremely large, where there is an inflammatory process of the adnexa or cystic ovaries, where the possibility of future pregnancy is im-portant and the fibroid can be removed without removing the uterus.

Thyroid can be treated as well, if not better, than by surgery with the exception of the large colloid and adenomatous goiters, which are definitely surgical.

Skin conditions, as eczema, psoriasis, acne, keloids, and

carbuncles are benefited greatly by x-ray, except that the effect in many of these is temporary and cannot be repeated too often on account of skin reactions.

X-ray to date is the only promising treatment for leukemias, Hodgkin's and lymphosarcoma. Although these patients are not cured, their lives are often prolonged

and they may be made comfortable for many years.

Light doses of x-ray may relieve an acute iritis within twenty-four hours. Tuberculosis glands and enlarged bronchial root glands are frequently helped. An acute suppression of urine may be relieved by x-ray easier than by a decapsulation. In tonsils radiation is second choice by a decapsulation. In tollisis radiation is second enough to surgery. It tends to prevent recurrence of lymphoid tissue on postpharyngeal wall.

In carcinoma, surgery is the method of choice. Incomplete removal, followed up by x-ray, is advisable where

complete removal is impossible.

X-ray is of no benefit in carcinoma of the stomach and intestine; no better than surgery in the treatment of primary bone neoplasm, and of questionable value in the treatment of carcinoma of the uterus. It is of decided benefit in the treatment of carcinoma of the ovaries.

It is better than surgery in the treatment of superficial

malignancies of the face.

In breast carcinomas statistics of Soiland, Schmitz, Phabler, Widmer, show five-year cures by combined surgical and x-ray treatment of 36, 42, and 46 per cent, as compared with 4.5 per cent of five-year cures of surgery alone reported by Ewing.

Doedreleine's clinic gives figures of 46 per cent for cases without glands and 5 per cent with glands when treated by surgery, as compared with 80 and 36 per cent

when treated by the combined method.

As to the time and amount of treatment, there should be constant co-operation and consultation between the surgeon and roentgenologist preferably by seeing the

patient together.

Discussion followed: Harold Brunn reported some bad recurrences in carcinoma of the breast. Recurrences were more frequent where x-ray had been given immediately before operation. Does not advise x-ray treatment until recurrences have appeared. Had very good results with carcinoma of the cervix. The question of whether to operate after lesion is cleaned up is still an open one. Best results are with leukemias and Hodgkin's.

Joseph Sampson reported good results with x-ray treatment of enlarged thymus. Adolph Nahman reported a case of lymphatic leukemia, whose blood count came down

from 160,000 to 50,000 after six treatments.

Lloyd Bryan said Carter Wood advises frequent small doses with x-ray after operation. Big doses may break

down the lymphocytic carrier. Bone metastases are often stopped and patients given

a few more years of active comfortable life. X-ray does not produce a carcinoma, but it may hasten recurrence, breaking down the barrier by massive doses. No good results are found in treating carcinoma of the lung when the pleura is involved.

Adenomas of the thyroid are not suitable for x-ray therapy. Simple hyperthyroidism responds well.

The discussion closed with a plea for a get-together of

surgeon, physician, pathologist, and roentgenologist, and to have all patients brought before a committee to determine treatment.

Louis I. Breitstein opened up a discussion on the sub-ject of pregnancy occurring after sterilization operation. He stated that the records of Mount Zion Hospital since 1912 show that forty-five women had been sterilized at

the time of Caesarean section and five of these became pregnant again at subsequent dates. The method of sterilization had been the removal of the cornual ends of the tube. In one of the women who became pregnant following this procedure, there was found at reoperation a new tube projecting from the site of the resection of the old tube. Another explanation for the occurrence of pregnancy in these sterilized women might be found in the well-known fact that the ova have powers of burrowing their way through the tissues and possibly penetrating the uterus in this manner. Breitstein further mentioned the question of therapeutic abortion and felt that where the indications for this procedure were present, as for instance in early pulmonary tuberculosis, the procedure of choice was to perform a hysterotomy and partial resection of the tubes for sterilization rather than curettage.

R. K. Smith substantiated these observations, stating R. K. Smith substantated these observations, stating that in his experience also he had had cases where pregnancy had recurred despite sterilization. He compared the burying of the tube as it is done in the sterilization operation to the bone left in cases of leg amputation, showing that both have a tendency to burrow through the

overlying tissues.

The Medical Reserve Corps-The surgeon, Ninth Corps Area, announces that Oregon is the latest state to furnish its full quota of officers of the Medical Reserve Corps, and to join the 100 per cent class. The other two states in this class are Montana, which has furnished 110 per cent, and Utah which has furnished 132 per cent. About every fourth physician in Utah is now an officer of the Medical Reserve Corps herides, which the applications of the Medical Reserve Corps herides, which the applications of the state of the Medical Reserve Corps, besides which the applica-tions of many others had to be rejected by reason of age or physical unfitness for service. Wyoming has furnished 91 per cent. The splendid record of these four states are standards which the medical profession of California and Nevada can well afford to emulate. California has so far furnished but 67 per cent of its quota, and 410 more medical officers are required. Nevada has furnished but 57 per cent, or less than half the percentage of its neighbor state of Utah. Nevada needs to furnish ten more medical officers to fill its quota.

The physicians of California and Nevada are at least undoubtedly as patriotic as that of their bordering states of Oregon and Utah. But until they have fulfilled their obligations, they appear as laggards. It does not look well for them to have numerous vacancies in their units filled through the enthusiasm and surplus patriotic enrollments of other states, as is now the case. It would be very desirable for the county medical societies of California and Nevada to take up actively the matter of filling their state quotas, and to urge upon such of their mem-bers as seem to conform to the required standards as to age and physical condition to make application for commission in the Medical Reserve Corps. The surgeon, Ninth Corps Area, Presidio of San Francisco, California, will gladly furnish the necessary blank forms and any other information desired.

North American Physicians are Invited to Visit the Clinics of Europe Again in 1927—In May next year a group of physicians with members of their families from the United States and Canada, under the direction of the Interstate Postgraduate Medical Association of America, will sail from New York to visit the following leading medical centers of the Old World:

London, Edinburgh, Oslo, Stockholm, Upsala, Lund, Copenhagen, Hamburg, Leipzig, Munich, Strasbourg, Heidelberg, Frankfort, and Paris.

This will be the third year that foreign assemblies have been conducted, under the auspices of this organization.

The price of the trip will be kept as low as possible and yet furnish first-class accommodations. It will be between \$1000 and \$1100. All physicians who are in good standing in their state or provincial society may register. Further information may be obtained from the managingdirector, Dr. William B. Peck, Freeport, Illinois.

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CALIFORNIA AND WESTERN MEDICINE has grown to a size where it is no longer possible to bind the twelve issues of one year in the same volume. Therefore, beginning with this year, there will be two volumes a year, one covering the six issues from January to June, inclusive, and the other from July to December, inclusive. Volumes will be numbered serially as heretofore, and each volume will be supplied with an index.

In preparing the index to this volume, we have followed the method of an alphabetical subject and author index combined. It is not as full perhaps as it should be, because it would take most of the time of an indexing secretary to prepare as complete an index as we would like to see. However, it is full enough so that any major subject discussed during the year, and the names of all authors, may be readily located.

An ever enlarging circle of physicians who read systematically are finding the Cumulative Index published quarterly by the A. M. A., and sold for a nominal subscription, of incalculable value. Everything published in California and Western Medicine, as well as other worthwhile medical magazines, is completely indexed in the "Cumulative" in a most complete author and subject index. Our editorial staff use this volume constantly.—Editor.

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